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U.S. DEPARTMENT OF AGRICULTURE
Science and Education Administration

FAMILY ECONOMICS REVIEW is a quarterly report on research relating to economic aspects of family living. It is prepared primarily for home economics agents and home economics specialists of the Cooperative Extension Service.

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RETIREMENT INCOME

By Colien Hefferan¹

Over the past 40 years with the advent of widespread coverage under social security and private pension plans, aspirations for retirement levels of living have expanded to include maintenance of an independent household and a high degree of mobility. However, the ability to maintain an adequate level of living after retirement from the labor force has become a focus of concern for families and individuals at or near retirement age and for younger families planning their financial futures. The President's Commission on Pension Policy reports that nearly two-thirds of Americans are concerned that their retirement incomes will be inadequate to meet their needs; over one-half said they expected a lower standard of living after retirement (8).

Retirement Income Concerns

Inflation has jeopardized retirement living levels and complicated retirement planning. The Consumer Price Index (CPI) has risen approximately 40 percent over the past 5 years an average annual increase of 8 percent. At this level of increase, the purchasing power of a fixed retirement benefit is reduced by about 33 percent at the end of 5 years, 55 percent at the end of 10 years, and 70 percent at the end of 15 years. At a 12 percent annual increase in the level of prices, purchasing power is reduced 47, 72, and 85 percent over 5, 10, and 15 years, respectively. Indexing² of some retirement benefits, such as social security, has alleviated part of the effects of inflation on retirement living levels; however, the effect of inflation can be a severe threat to the economic well-being of retired persons whose sources of income are for the most part not indexed.

Predicting retirement income needs is difficult because inflation does not affect all components of the family budget equally. Also,

many families adjust their expenditure patterns in response to changes in prices. Predicting needs on the basis of current inflation rates can produce startlingly high figures. For example, the Bureau of Labor Statistics (BLS), U.S. Department of Labor, estimates annual expenditure budgets for retired couples at three different levels of consumption—low, intermediate, and high. Using these budgets as a starting point and applying a 10 percent rate of inflation over time, a couple's projected retirement living costs at the intermediate budget level would be almost \$25,000 per year by 1990 and more than \$150,000 per year by 2010. Even at a more conservative estimate of 5 percent annual inflation, retirement costs by 2010 would be over four times those of 1978.

Demographic trends indicate a shift toward a larger proportion of older persons in the U.S. population in the future. Currently persons 65 years of age and older comprise approximately 11 percent of the population (13). By the year 2010, older persons are estimated to comprise more than 13 percent of the population. By 2050, the estimate is greater than 20 percent (12).³

Both the aging of the "baby boom" cohort of the late 1940's and the early 1950's and the increased longevity among older persons contribute to this population shift. A man retiring today at age 65 can expect to live about 14 years; a woman can expect to live for more than 18 years. Overall, life expectancy at age 65 has increased about 3 years over the past 40 years (17). This means that unless persons elect to retire at a later age, 4 individuals, as well as the retirement income system as a whole, should be prepared to provide for long periods of retirement in the future.

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²Automatic adjustment of benefits in response to changes in the CPI.

³Population projections are based on assumptions regarding future fertility, mortality, and net immigration. For a full discussion of the assumptions on which these projections are based, see Reference 12.

⁴There is little evidence to suggest that late retirement is the preference of most workers. The President's Commission on Pension Policy reports that almost one-half of the working population expects to retire at age 62 or before.

As the population ages, the ratio of retired persons to active workers—the dependency ratio-increases. The social burden of providing for the income adequacy of retired persons will be concentrated among a relatively smaller group of active workers, thus putting great pressure on the retirement income system. Figure 1 shows projected dependency ratios assuming typical retirement ages of 62, 65, 68, and 70 years. If the typical retirement age is 65, the dependency ratio will increase from about 30 percent in 2010 to more than 40 percent in 2050. If retirement age is 70, the dependency ratio will remain relatively stable around 27 percent. For persons in the retirement planning process, an increasing dependency ratio may signal the need to make provisions for retirement income in addition to that provided by social security and other retirement income systems supported by active workers.

Income Adequacy at Retirement

Income adequacy at retirement can be measured in either relative or absolute terms. The former assess the income position of retired persons relative to their preretirement

income, while the latter assess their income in comparison to a specific standard of need.

The most frequently used relative measure of income adequacy at retirement is the wage replacement ratio—the ratio of pension income to preretirement earnings.⁵ While this measure of income adequacy is conceptually simple, defining preretirement earnings can be difficult; the most frequently used measure is final wages or wages earned over a recent span of time.

Wage replacement ratios can be used to express the proportion of preretirement income that must be replaced in retirement in order to avoid a drop in the level of living. It is hypothesized that less income is needed to support a retirement level of living than an equivalent preretirement level because of changes in consumption patterns, tax liability, and saving and investing. For example, in retirement, work-related expenses are reduced or eliminated; liability for certain taxes such as income and property tax is often reduced or eliminated; and the need to save and invest for the future is reduced.

⁵For an extensive discussion of the derivation of wage replacement ratios, see Reference 5.

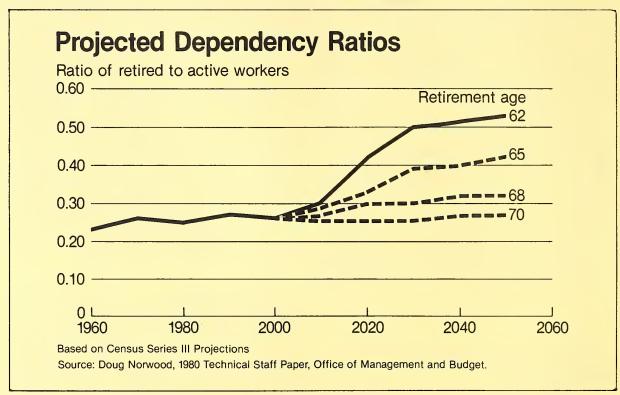


Figure 1

The actual wage replacement ratio needed to afford equivalent preretirement and retirement levels of living varies with the level of preretirement income. Actuaries and researchers estimate that given a minimum but adequate preretirement level of living, a single individual would need wage replacement of 75 to 85 percent to afford an equivalent retirement level of living (7, 10). A middle-range earner would need to replace 60 to 70 percent of his or her preretirement income to afford an equivalent level of living. A high-range earner would need a 45 to 55 percent wage replacement ratio. The higher the preretirement earnings, the greater the proportional reduction in certain expenses at retirement, especially taxes—therefore, the lower the wage replacement ratio needed to obtain an equivalent level of living.

For couples, wage replacement needs are estimated to be about 5 percentage points higher than for single individuals. This reflects the assumption that certain expenses, such as taxes and housing, are proportionately lower for couples than for single individuals during their working years; 6 therefore, there is less margin for reduction in these expenditures at retirement.

Estimates of acutal wage replacement ratios currently derived from social security benefits and private pension plans vary greatly according to the assumptions on which the calculations are based. The wage replacement ratio derived through social security benefits has been estimated at 54 percent for couples where the wife is retired from the labor force and 58 percent for couples where the wife is dependent (6). Using different assumptions, another researcher reports the replacement rate derived from social security for married persons who were median-income earners to be 45 percent

(10). Similarly, estimates of the wage replacement ratios derived from private pension plans range from 9 to 37 percent.

The Social Security Administration, U.S. Department of Health and Human Services, predicts that wage replacement ratios will rise steadily through the year 2050. This is primarily because social security benefits are indexed to changes in the level of prices, and prices are expected to rise more rapidly than are wages. For median-wage-earning males retiring at age 65, social security benefits are projected to replace in excess of 60 percent of preretirement income by 2020. Wage earners at lower income levels can expect higher replacement ratios. Figure 2 shows the wage replacement ratio projections at three levels of income through 2050.

The wage replacement ratio is a meaningful measure of income adequacy only for those retired persons who had an adequate level of living before retirement. For families and individuals with inadequate preretirement income, income adequacy after retirement is best measured in absolute terms, that is, assessment of retirement income in comparison to a specific standard of need. Two standards used to develop absolute measures are the BLS lower level budget for a retired couple and the poverty index developed by the Social Security Administration.

The BLS lower level budget for a retired couple prices a hypothetical list of goods and services used by a husband, age 65 or over, and his wife, to maintain a self-supporting household in an urban area. The budget provides for a level of living above the subsistence level but lower than the BLS intermediate and higher level budgets. The Social Security Administration poverty index, adopted by a Federal Interagency Committee in 1969, is based on the U.S. Department of Agriculture's 1961 Economy Food Plan. The index reflects different consumption requirements of families based on their size and composition, sex and age of household head, and farm-nonfarm residence.

The estimated U.S. average annual cost of the BLS lower level budget for a retired couple was \$5,514 in the fall of 1978 (19). In the same year the median income of all two-person households with a head 65 years of age or older who was not in the labor force was \$5,734

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⁶For some husband-wife two-earner households with equal or similar incomes, Federal income tax liability is higher than for single taxpayers. This is called the income tax "marriage penalty." Only a small portion of couples aged 45 to 64 are subject to the marriage penalty for several reasons. First, among these couples slightly more than one-half have only one income earner. Secondly, among the couples with two earners, only about 10 percent have incomes similar enough to generate extra tax liability. In fact, it is estimated that approximately 90 percent of all couples aged 45 to 64 have reduced Federal income tax liability based on their marital status.

(16). This would seem to indicate that almost one-half (those with incomes below the median) of all older couples do not have adequate income to afford the lower level of consumption specified in the BLS budget.

The poverty threshold for a two-person household with a head 65 years of age or older was approximately \$3,900 in 1978 (14). In spite of broad coverage by social security retirement benefits and expansion in coverage under private and public employee pension plans, approximately 14 percent of the persons 65 years of age or older had incomes below the poverty line in 1978 (15). An additional 8.4 percent of the elderly population had incomes classified at near poverty levels (between 100 and 125 percent of the poverty threshold) resulting in nearly one-fourth of all persons 65 years of age or older having poverty or near poverty level incomes (15).

Planning for Adequate Income at Retirement

To effectively plan for adequate income at retirement, an individual or family should start with an assessment of their retirement goals and lifestyle expectations. Based on such goals and expectations, decisions regarding retirement income needs and provisions of such needs can be made.

There are four major components in a retirement income plan: Social security, employee pension plans, personal saving and insurance, and postretirement employment earnings. Figure 3 shows the percentage of retirement income families and individuals receive from each of these sources. Each of these components has unique characteristics related to its ease of acquisition and management, and vulnerability to changes in economic conditions. These characteristics make certain sources of retirement income more widely available than others and make certain sources more inflation-proof than others.

Generally, the more sources of income a retiree has, the more likely he or she is to have adequate income. Furthermore, older persons with current earned income tend to have significantly higher overall incomes than older persons without earned income. Approximately 7 percent of all older families and 25 percent of those below the poverty line rely exclusively on social security for income.

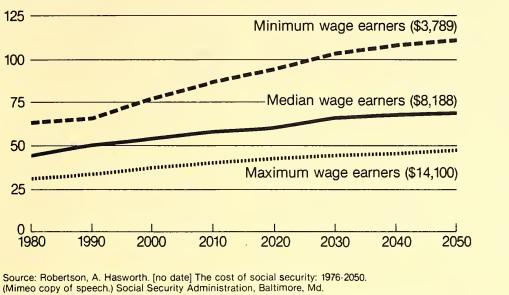
Older persons living in families are more likely to have access to multiple sources of income, including current earned income, than are older persons living alone; thus, they are more likely to have adequate income. For example, 47 percent of families have both current earned and nonearned income compared to 17 percent of unrelated individuals with both earned and nonearned income. Conversely, the percent of all unrelated older persons who live below the poverty line (27 percent) is more than three times greater than the percent of all families headed by older persons who live below the poverty line (9 percent).

Social security benefits. Social security is a "pay-as-you-go" retirement income system in which employers and workers make mandatory contributions that are used to finance benefits paid to retirees. As envisioned in the Social Security Act of 1935 and amendments to the act in 1939, the social security program was to establish a self-supporting system of intergenerational economic transfers. To provide adequate income in retirement, the system would provide a minimum floor of retirement income that would be supplemented by personal savings and private pension plans. Although intended to provide only the base of retirement income, social security has become the sole source of support for millions of Americans. In 1977, 27 percent of all recently retired persons had social security benefits as their only source of income.

Social security covers more than 90 percent of all paid employment and accounts for more than three-fourths of the \$9.1 billion in retirement benefits paid monthly in the United States. The average monthly benefit awarded to a retired worker during March 1980 was \$321 (18). The average monthly payment awarded living dependents of retired workers was somewhat less than one-half that amount. Automatic cost-of-living increases assure that social security benefits maintain their purchasing power. For example, in the 12-month period ending in October 1979, social security benefits increased 15 percent.

Eligibility for social security retirement benefits is based on age and the length of time an individual has worked in covered employment. This is measured as "quarters of coverage." An employee or self-employed individual receives





Note: This chart is based on the following assumptions:

Retirement is proceeded by a minimum of 5 years active participation in the labor force.
 A worker's wage base established in 1975 increases at 5.75% annually.
 The CPI increases at 4% annually.

Figure 2

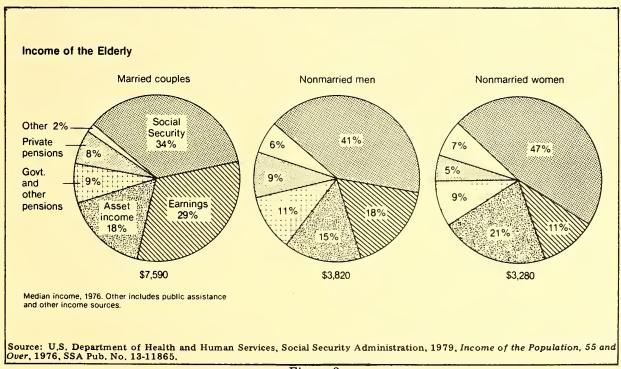


Figure 3

one quarter of coverage for each \$250 of covered annual earnings up to a maximum of four quarters per year. Generally, 40 quarters of coverage—10 years—are needed to be eligible to receive social security retirement benefits. A lifetime record of covered employment for each worker is kept by the Social Security Administration; therefore, credits do not have to be earned in a continuous span of time.

The level of benefits a retiree is eligible to receive is based on his or her average indexed monthly earnings (AIME). In calculating the AIME, workers must count all years between 1950 or the year they turn 21 and the year they turn 62. Five years of low earnings or no earnings can be excluded from the calculation, and wages and salaries earned since 1951 are indexed to reflect changes in the level of earnings since that time. Maximum benefits payable to a retiree are limited by maximum creditable earnings allowed in any one year. Added benefit credits are allowed for workers who delay retirement beyond age 65. Under the present benefit formula, a worker retiring at age 65 will receive a benefit that replaces 90 percent of the first \$180 of his or her AIME, plus 32 percent of the next \$905 of AIME, plus 15 percent of AIME above \$1,085.

As part of the retirement income planning process, workers are advised to check their social security records every 3 to 4 years to insure that all covered employment and earnings have been accurately recorded. About 6 months before a worker plans to retire, he or she should get in touch with the Social Security office to initiate the retirement benefit process. The Social Security Administration maintains over 1,300 offices across the country to assist workers in understanding the program, seeing their records, and establishing eligibility for benefits.

Employee pension plans. Approximately one-half million employee pension plans are in effect in this country covering about one-half of the labor force. After several decades of growth, the proportion of the labor force covered under these plans has remained relatively stable over the past 5 years. As of 1975, more than 7 million persons were receiving benefits from employee pension plans (9). These benefits equaled slightly less than one-fourth of all retirement benefits paid in the United States.

Nearly all employee pension plans are "advance funded," which means that employers and workers set aside current funds to pay benefits to future retirees. This system of advance funding has led to tremendous growth in the financial reserves held in pension plans. The assets held in employee pension plans currently total more than \$600 billion. This comprises more than one-fourth of all the assets held by households.

The expansion in coverage under employee pension plans, which occurred in the 1950's and the 1960's, coupled with growth in the financial reserves held in pension plans (and the opportunities for abuse of those reserves), led to legislation enacted in 1974 designed to improve the financing and operation of employee pension plans and profit-sharing systems. This legislation was entitled the Employee Retirement Income Security Act (ERISA).

ERISA does not require employers to establish pension plans. Employers who elect to establish pension plans and who wish to qualify for favorable tax treatment must, however, follow ERISA standards on vesting, participation, financing and funding, and reporting and disclosure.

Vesting is the nonforfeitable right of an individual to receive a future pension based on earned credits even if he or she leaves a job before retirement. Vesting provisions of ERISA prescribe how long a worker must be employed before he or she can make a claim on the employer's contribution to his or her retirement plan. There are several alternative methods

⁷Maximum creditable earnings are equivalent to the maximum earnings base on which social security taxes are assessed. The earnings base is \$3,600 from 1951 through 1954, \$4,200 from 1955 through 1958, \$4,800 from 1959 through 1965, \$6,600 for 1966 and 1967, \$7,800 from 1968 through 1971, \$9,000 for 1972, \$10,800 for 1973, \$13,200 for 1974, \$14,100 for 1975, \$15,300 for 1976, \$16,500 for 1977, \$17,700 for 1978, \$22,900 for 1979, and \$25,900 for 1980.

⁸ Most employee pension plans are designed so that employers pay all or most of the costs of operating the system. For example, in 1975, 92 percent of all contributions to employee pension plans were made by employers.

of vesting allowable under ERISA, but all result in at least 50 percent vesting, or ownership, within 10 years of employee service and 100 percent within 15 years. Information about vesting is useful to workers reaching retirement because the size of their retirement benefit is based in part on the size of their vested shares in employee pension plans in which they participated during their working years. For younger workers, information about vesting is useful in making decisions about job changes. At certain points in a worker's career a change in employers may eliminate his or her claim on a pension plan.

Generally employers providing tax-qualified pension plans must allow full-time workers 25 years of age or older or those who have worked for one year to participate in the pension plan. Exceptions are made for seasonal workers, workers who actively decline to participate, and certain programs with immediate vesting. Many programs can, and do, allow for immediate participation. Since pension plans represent a significant part of the employee benefit package offered by most employers, participation in a plan means real economic gain to the employee. 9

The financing scheme—the process by which employers and workers make contributions to the pension plan and the way in which the funds are managed—is important to active workers because it determines the relative contribution of workers and the employer to the pension plan. For workers nearing retirement age, the scheme is important because it influences the opportunity for and the costs associated with early retirement.

The standards mandated under ERISA that relate to reporting and disclosure requirements require that a description of each plan, an annual report, and an auditor's report be submitted to the U.S. Department of Labor. Also, plans must be registered with the Internal Revenue Service. While most of the reporting and disclosure standards under ERISA require that information be filed only with government agencies, the majority of qualified pension plans have also adopted disclosure practices to their individual participants. This information,

which usually takes the form of an annual status report of an individual employee's retirement account, provides valuable input to the retirement planning process and serves as a tool for assessing the value of benefits associated with the current employment.

Many other components of employee pension plans are not subject to regulation under ERISA but they are important to consider in planning for adequate income at retirement. For example, both retirees and current workers should assess the benefit payment structure of their pension plan. Are the benefits adjusted for receipt of social security benefits? Are the benefits adjusted in response to changes in the level of prices? Does the payment structure provide income security for a worker's spouse through survivorship rights? These and other issues greatly influence the value of employee pension plans in contributing to income adequacy at retirement.

In addition to setting standards for employee pensions, ERISA provided provisions to encourage self-employed persons and those not covered by employer-sponsored plans to establish Individual Retirement Accounts (IRA's). ERISA also established the Pension Benefit Guaranty Corporation within the U.S. Department of Labor to provide an employer-financed, government-operated insurance system for pension plans.

Personal saving and insurance. While a growing number of persons have come to rely on social security and institutional pension plans as their primary sources of income in retirement, personal saving and insurance continue to be important components of an individual or family retirement income plan. As many as two out of three households are saving or investing in anticipation of retirement income needs (3). Saving for retirement is among the most frequently cited reasons households give for saving current income. 10

Both rate of saving and total assets held are higher among households headed by older persons than among those headed by younger

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⁹For complete information on the economic value of employee benefits, see Reference 20.

¹⁰Other frequently cited savings goals are the purchase of a house and education of children. These goals and household income patterns are related to the family life cycle; thus, household savings rates vary over the family life cycle.

persons (4). In the 1977 Consumer Credit Survey, households with heads 45 to 64 years of age were most likely to report having made either large or typical additions to their financial reserves and least likely to report having made large decreases. Households with heads at or near retirement age were most likely to report very high balances—in excess of \$10,000—in their savings accounts.

Similarly, analysis of data from the 1972-73 Consumer Expenditure Survey indicates that households headed by persons 45 to 64 years of age have a higher average rate of saving, as measured by net increase in financial assets relative to total income, than do households headed by persons either younger or older. Amounts held in savings accounts, as well as total financial assets, are highest among households headed by persons at or near retirement age. While these findings do not necessarily indicate that households accumulate assets specifically in anticipation of retirement, there does appear to be intensified saving activity at the stages of the life cycle before retirement.

To encourage individual saving for retirement, several tax incentive programs became effective in 1975. These programs, primarily Keogh plans and IRA's, allow self-employed persons and those working for employers who do not provide pension plans to establish tax-deferred savings plans through major financial institutions including banks, thrift associations, and insurance companies.

Under the Keogh plan, a self-employed individual can defer tax on the lesser of 15 percent or \$7,500 of annual earned income by establishing and maintaining a retirement savings program. Self-employed persons are required to establish similar plans for their employees, if they establish one for themselves. The guidelines for IRA's allow persons not covered by an ERISA qualified pension plan to set aside the lesser of 15 percent or \$1,500 of annual earned income in a tax deferred savings program.¹¹

Over 1 million persons have established tax deferred individual retirement savings plans with insurance companies (1). Most of these

111979 amendments to ERISA allow employers to contribute up to \$7,500, or 15 percent, per year in lieu of the \$1,500 employee contribution.

retirement savings plans, as well as more than 200,000 nontax deferred retirement plans, are in the form of annuities. Annuities are contracts underwritten by insurance companies that guarantee the purchasers a stream of income for life or a specified number of years. In other words, an annuity is an insurance policy against outliving one's income.

There are two major forms of annuities: Immediate and deferred. An immediate annuity is purchased with a lump sum payment at which time the annuitant immediately begins receiving a monthly or annual income. A deferred annuity may be purchased with either a lump sum payment or with a series of installment payments with income payments scheduled to begin at a future date. Most Keogh's and IRA's held with insurance companies are deferred annuities.

Annuities can be tailored to an individual's needs and goals. A straight life annuity will provide a guaranteed monthly income and terminate at the annuitant's death. A joint life and survivorship annuity will provide payments until the death of the last surviving annuitant. Several types of annuities will provide payments to heirs as well as the annuitant, but the monthly income paid to the annuitant is reduced.

Increasing numbers of individuals and families are using annuities and other life insurance plans to provide income during retirement. The life insurance industry estimates that more than three-fifths of the benefits it paid in 1978 (more than \$17 billion) were in the form of living benefits rather than death benefits (1). Most of this was individual retirement income.

Researchers have estimated the individual saving rates that would be required to provide adequate income at retirement (replacement rates of 50 to 100 percent) to be 15.8 to 38.1 percent of income earned during a worklife of 40 years (2). Few individuals or families are willing or able to independently save this much of their income for retirement, but evidence indicates that many households include some degree of personal saving and insurance in their retirement income plan.

Postretirement employment earnings. About 30 percent of the population 65 to 69 years of age and more than 13 percent of those over 70 participate in the labor force. While the majority of these older workers have simply delayed

retirement beyond 65, the most frequent retirement age, a growing number of retired persons are entering the labor force on a part-time or seasonal basis to supplement their retirement income.

Opportunities for employment, usually parttime, have become an increasingly important concern for persons retiring from life-long, fulltime occupations. Many individuals work over their life span to develop skills which will earn income in retirement. Still greater numbers of persons select their retirement location on the basis of opportunities for employment. Postretirement employment provides a relatively inflation-proof source of retirement income, as well as a means for using skills and participating in the community. For these reasons a growing number of older persons are seeking employment. For example, the Senior Community Service Employment Program, funded under the Older Americans Act, provides jobs for more than 50,000 older persons, but has 10 applicants for each new opening.

Certain disincentives to work exist in the present retirement income system. For example, current social security provisions include an earnings test which reduces retirement benefits to wage earning retirees. For beneficiaries age 65 to 72, \$1 in benefits is withheld for \$2 earned in excess of \$5,000 annually. For beneficiaries age 62 to 64 the earnings limit is

\$3,720. There is no earnings limit for persons over 72. These limits are scheduled to be raised in 1982 to \$6,000 for those over 65, with later adjustments based on rising wage levels.

As part of an overall plan to assure adequate income in retirement, postretirement earnings can make an important contribution. Age can bring increased incidence of ill health, senility, and obsolescence of work skills which limit employment opportunities and continuity; however, under conditions of persistent uncertainty about the economic future, development of employable skills may be one of the most important components of retirement income plan.

Conclusion

Assessing income adequacy at retirement and making provisions to assure the availability of adequate income at retirement are important components of the life-long process of financial planning. This article has focused on the income side of the family financial balance sheet, but overall satisfaction with one's level of living is dependent not only on income, but also on income needs and management of resources. In planning to provide adequate income at retirement, individuals and families need also to consider development of skills to manage their limited financial resources and cope with changing economic conditions.

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AN INTERIM REPORT—THE PRESIDENT'S COMMISSION ON PENSION POLICY

This report identifies issues related to the Nation's retirement, survivor, and disability income systems and establishes long-term study and policy objectives to be addressed by the President's Commission on Pension Policy. In the report the Commission recommends that consideration be given to the establishment of a universal advance funded pension system that would supplement social security and incorporate components of existing employee pen-

sion plans. Other issues addressed in the report include retirement income goals, tax policy, treatment of spouses, social security coverage, retirement age, and control of pension fund assets.

For additional information on this report, write to the President's Commission on Pension Policy, 736 Jackson Place, NW., Washington, D.C. 20006.

TWO MEASURES OF INFLATION: THE CONSUMER PRICE INDEX AND THE PERSONAL CONSUMPTION EXPENDITURE IMPLICIT PRICE DEFLATOR

By Frankie N. Schwenk¹

Concern over inflation has created increased interest in the economic tools used to measure inflation. This article explores the uses and construction of two frequently cited measures of inflation—the Consumer Price Index (CPI) and the Personal Consumption Expenditure (PCE) implicit price deflator. The CPI is constructed from data collected from households by the Bureau of Labor Statistics (BLS), U.S. Department of Labor, while the PCE is developed from aggregate data by the Bureau of Economic Analysis (BEA), U.S. Department of Commerce. Table 1 outlines characteristics of each.

Uses of the Indexes

Both the CPI and the PCE implicit price deflator are used in developing economic policy and in understanding changes in our economy. The CPI is used to revise wages, salaries, and income payments-actions that directly affect the income of one-half of the U.S. population. For example, labor contracts have wage-escalator clauses based on the CPI. The income of social security beneficiaries and retired civil service or military personnel is tied to the CPI. Child support agreements and rental contracts may be increased automatically on the basis of the index. In addition, the CPI is used as a deflator to translate into inflation-free dollars other series such as retail sales and hourly and weekly earnings.

The PCE deflator is used to deflate estimated money aggregates, such as converting nominal per capita income into real terms and calculating constant dollar Disposable Personal Income (DPI).

What the Indexes Measure

The CPI measures change over time in the price of a fixed market basket of goods and services, whereas the PCE deflator measures price change of a changing market basket.

Although the CPI is often referred to as a costof-living index, it is not. A true cost-of-living index would include taxes and noncash consumption (such as job fringe benefits or government services) and allow for quality changes in products and for substitutions people make in response to higher prices. The CPI does not allow for these. Nevertheless, the CPI with its fixed market basket is used for "cost-of-living" adjustments to income because the purpose of such adjustments has been to permit people to purchase in today's prices the bundle of goods and services they purchased in a base period. leaving them at least as well off as they were then. Although the CPI publishes indexes for various cities, comparison of price levels among cities is not possible because the index measures only the change in prices since the base period for each area.

The PCE deflator includes some noncash consumption (the value of food, fuel, clothing, rent of dwellings, and financial services received in kind by individuals) and due to the changing market basket, allows for product quality changes and substitutions consumers make to adjust to changes in relative prices. Because of the changing market basket, comparison of current prices to prices of previous periods, however, is not possible with the PCE deflator. Current prices can be compared only with prices of the base period.

Data Base for the Indexes

The Consumer Price Index for Wage Earner and Clerical Workers (CPI-W) covers urban wage earners and clerical worker families and single individuals, who account for about 45 percent of the population. A second index, the Consumer Price Index for All Urban Consumers (CPI-U), includes about 80 percent of the population—all urban residents, including salaried workers, self-employed workers, retirees, and unemployed persons, as well as urban wage earners and clerical workers. Both indexes exclude farm families, military personnel, and persons in institutions.

¹Family economist, Family Economics Research Group, Science and Education Administration.

Table 1. Two measures of inflation: The CPI and the PCE implicit price deflator

Item	Consumer Price Index	Personal Consumption Expenditure implicit price deflator
Population	CPI-U urban residents. CPI-W wage earner and clerical workers.	Individuals and nonprofit organizations.
Measures	Changes in prices of fixed market basket.	Changes in prices and in composition of expenditures.
Base year	1967	1972
Index	Laspeyres $\frac{\boldsymbol{\Sigma} \mathbf{q_0} \mathbf{p_1}}{\boldsymbol{\Sigma} \mathbf{q_0} \mathbf{p_0}}$	Paasche $\frac{\Sigma q_1 p_1}{\Sigma q_1 p_0}$
	$\Sigma q_0^{}p_0^{}$	$\Sigma q_1 p_0$
Index	Market basket purchased in current period	Nominal Personal Consumption Expenditures
-	Market basket purchased in base year 1967	PCE in constant (1979) dollars
Item coverage	Fixed market basket based on 1972-73 Consumer Expenditure Survey.	Aggregate Personal Consumption Expenditures.
Weights	Relative importance of items based on 1972-73 Consumer Expenditure Survey. Weights for outlets based on 1974 Point-of-Purchase Survey.	PCE is broken into components, such as housing. Each component deflated to 1972 dollars by most appropriate price index (usuall CPI). After deflated, the components are added together to get PCE in constant dollars.
Uses	 To · Escalate wages, salaries, and income payments. Deflate series, such as retail sales, hourly and weekly earnings. Assess changes in the economy 	 To— Deflate estimated money aggregates such as constant dollar Disposable Personal Income. Assess changes in the economy.
Published	Monthly. NEWS, the Consumer Price Index Bureau of Labor Statistics U.S. Department of Labor Washington, D.C. 20212	Monthly on p. S-2. Survey of Current Business 1 Bureau of Economic Analysis U.S. Department of Commerce Washington, D.C. 20230
1979 change in annual average	11.3%—CPI-U 11.5%—CPI-W	8.9%

¹Subscription: U.S. Government Printing Office, Washington, D.C. 20402

The CPI market basket is based on consumption patterns reflected in the BLS 1972-73 Consumer Expenditure Survey—data from about 20,000 families in a series of quarterly interviews and from another 20,000 families who completed a 2-week diary of expenditures. The items are selected and weights are applied so the relative importance of each item is consistent with consumer purchasing patterns in the year of the survey.

Once the market basket of items is established, the market basket is priced over time. Prices are collected, mostly by personal visits, in 85 urban areas across the country from about 24,000 establishments (e.g., retail stores, movie theaters, and doctors' offices). These outlets in which items from the market basket are priced are selected and weighted on the basis of information from the BLS 1974 Pointof-Purchases Survey of about 23,000 families who were asked the name, location, and amount spent in retail outlets for many different categories of goods and services. Item selection for pricing within stores is keyed to the sales experience of the store in which the item is priced, giving each variety, brand, and size a chance of selection proportional to its importance in that particular store.

To have current information on consumption patterns, BLS is beginning to conduct an ongoing consumer expenditure survey and point-of-purchase program. Instead of major consumer expenditure surveys every 10 or more years, information from ongoing quarterly interviews and expenditure diaries will be published regularly. However, how often item weighting will be changed has not been decided. To reflect the marketplace on a continuing basis, a point-of-purchase survey will be conducted in one-fifth of the 85 primary sampling units in the index sample each year. Thus, the CPI outlet sample could be revised completely over a 5-year period.

The Consumer Price Indexes for the United States and 5 largest metropolitan areas are published monthly by BLS; 23 other large metropolitan area indexes are published bimonthly. Also, regional and city-size class indexes, which provide an appropriate index for persons not living in the selected metropolitan areas, are published bimonthly.

The PCE implicit price deflator is derived from Personal Consumption Expenditure data

collected as part of the BEA national income and product accounts (NIPA's). The PCE is an aggregate figure of goods and services purchased by individuals, operating expenses of nonprofit institutions, and the value of food, fuel, clothing, rent of dwellings, and financial services received in kind by individuals. Net purchases of used goods are also included.

Expenditures are derived by benchmark estimates of monthly total sales. Monthly sales data are collected from civilian retail establishments by the Bureau of the Census, U.S. Department of Commerce, and from military establishments by the U.S. Department of Defense. The aggregate monthly expenditures estimate is allocated among durable and nondurable goods categories in proportion to a preliminary estimate of expenditures in each category. The preliminary estimate is derived from calculated indexes for individual products. The sales for each kind of business are weighted by the percentage of the total sales of the product accounted for by that kind of business. The percentages used are based on the Merchandise Line Sales Report from the 1972 Census of Retail Trade. The PCE for services is estimated from receipts by service industries, reports of financial institutions, employment and earnings in service-related industries, and consumer stocks of durable goods and residential housing which are associated with outlays for services.

The PCE deflator, based on data collected monthly, reflects changes in consumption patterns that occur as consumers alter their purchases in response to changes in relative prices.

The PCE deflator is published monthly in the Survey of Current Business by BEA.

Computing the Indexes

The CPI is a modified Laspeyeres index that measures price change of a market basket consumed in the base period (currently 1967). A Laspeyeres index is the sum of the base period quantities multiplied by current prices divided by the sum of base period quantities multiplied by base period prices. In the Laspeyeres index:

$$\frac{\Sigma q_0 p_1}{\Sigma q_0 p_0}$$

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the q's are quantities of goods consumed and p's are the corresponding prices, with the subscripts 0 representing the base year and 1 representing the present year. Keeping the base period market basket, as CPI does, allows comparison over time and simplifies construction and maintenance of the index, since the market basket does not have to be changed each period.

The PCE implicit price deflator is a modified Paasche index that measures the difference between a market basket made up of today's goods and services and priced in today's prices (current dollars), and that same market basket as it would have been priced in the 1972 base period (constant dollars). The index is calculated as:

$$\frac{\Sigma q_1 p_1}{\Sigma q_1 p_0}$$

To calculate PCE in constant (1972) dollars, each component price index (such as housing or purchased meals) is deflated by the most appropriate price index available—usually the CPI.² The deflation is done monthly on a seasonally adjusted basis. After each component is deflated, the components are added together to get PCE in constant dollars.

Comparing the Indexes

The inflation rate measured as change in the annual average of the CPI for 1979 was 11.3 percent, but was 8.9 percent measured by the PCE deflator.³ This may be traceable to differences in the population coverage,⁴ definition of expenditures, and the weights used.

BEA publishes quarterly a reconciliation that explains the difference between the CPI

and PCE implicit price deflator (table 2). In table 2, line one indicates the percentage change in the PCE implicit price deflator, and line eight shows the percentage change in the CPI at an annual rate. Line two shows the percentage point contribution of quarterly shifting weights in the PCE implicit price deflator, indicating a change in consumption patterns, such as less fuel oil consumption during summer months. Line four shows the percentage point contribution of differences between CPI and PCE in weights attached to component price indexes of comparable expenditure components. For example, food at home has a larger weight in the CPI, so if food prices increase, the CPI is affected more than the PCE deflator. Line five contains the expenditure components that are part of PCE but not part of CPI, whereas line six contains expenditure components that are part of CPI but not PCE. For example, new auto purchases are retail values minus trade-in values in the CPI, but represent the total retail value in PCE. Finally, differences in seasonal adjustments are listed in line 7.

Issues

Because of the extensive uses of the measures, accuracy and reliability are important. Critics have felt that the CPI overestimates the rate of inflation because there is no allowance for quality changes or substitution in the market basket and housing is treated as a durable good. Overestimating price increases could contribute to inflation by causing a change in economic behavior of consumers and businesses and by overescalation of pay to those whose incomes are tied to the CPI.

Others point out that there are forces that push the CPI down, thus counteracting upward biases. For example, although housing prices increased substantially in 1968-78, the CPI home-purchase component was nearly the same as the All-Items CPI (6.7 percent average annual increase for the home-purchase component compared with 6.5 percent for All-Items. Other indexes of house prices, particularly the Bureau of the Census' index of prices

²Altogether, almost 95 percent of the weight of the price indexes used in the construction of the PCE measures is taken from the CPI. Price indexes for the other 5 percent include price indexes developed by BEA, the BLS Wholesale Price Index, and the U.S. Department of Agriculture's Index of Prices Received by Farmers.

³The year-end changes from December 1978 to December 1979 were 13.3 percent for the CPI-U and 10.2 percent for the PCE deflator.

⁴Includes individual and nonprofit institutions for PCE and urban residents for CPI.

⁵See reference 3 at end of this article.

Table 2. Reconciliation of changes in the PCE implicit price deflator and the CPI for all urban consumers, seasonally adjusted

Implicit price deflator for personal consumption expenditures (percent at annual rate)		1979	1980
Section Sect	Component		Quarter I ²
Section Sect	1. Implicit price deflator for personal consumption expenditures		
New autos		9.7	12.5
Casoline and oil -2	2. Less: Contribution in shifting weights in PCE	4	5
Electricity, gas, fuel oil, and coal			
Furniture and household equipment			
Food purchased for off-premise consumption 2			
Purchased meals and beverages 5			
Clothing and shoes			
Housing Other			
3. Equals: PCE chain price index (percent change at annual rate) 4. Less: Contribution of differences in weights of comparable CPI and PCE expenditure components Gasoline and oil -81.7 Electricity, gas, fuel oil, and coal furnishings 1. 2 Food at home -14 Food away from home -22 Apparel commodities Rent -33. Other 5. Less Contributions of PCE expenditure components not comparable with CPI components New autos Net purchases of used autos Owner-occupied nonfarm and farm dwellings—space rent Services furnished without payment by financial intermediaries except life insurance carriers Current expenditures by nonprofit institutions Other 3. 2. Other 3. 2. Other 3. 2. Other 3. 2. Other 4. 1. 1. 2. New autos -11. 0. Current expenditures by nonprofit institutions 3. 2. Other -11. 1. 2. New autos -22. Used autos -33. Homeownership -44. -44. 1. Less: Contribution of differences in seasonal adjustment ⁴ 11.		.3	.8
4. Less: Contribution of differences in weights of comparable CPI and PCE expenditure components	Other	.1	3
and PCE expenditure components	3. Equals: PCE chain price index (percent change at annual rate)	10.1	12.9
and PCE expenditure components	4 Less: Contribution of differences in weights of comparable CPI		
Gasoline and oil		-1.5	-1.4
Furniture, appliances, floor coverings, other household furnishings	Gasoline and oil		
Food at home	Furniture, appliances, floor coverings, other household	2	2
Food away from home		.1	.2
Apparel commodities 2 .2 Rent 3 3 Other 2 1.1 5. Less Contributions of PCE expenditure components not comparable with CPI components 1 -1.0 New autos 4 1 Net purchases of used autos 0 1 Owner-occupied nonfarm and farm dwellings—space rent .1 9 Services furnished without payment by financial intermediaries except life insurance carriers .1 0 Current expenditures by nonprofit institutions .3 .2 0 Other 1 1 1 6. Plus: Contributions of CPI expenditure components not comparable with PCE components 3 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1			
Rent			
Other 2 1.1 5. Less Contributions of PCE expenditure components not comparable with CPI components 1 -1.0 New autos 4 1 Net purchases of used autos 0 1 Owner-occupied nonfarm and farm dwellings—space rent .1 9 Services furnished without payment by financial intermediaries 2 9 except life insurance carriers .1 0 Current expenditures by nonprofit institutions .3 .2 Other 1 1 6. Plus: Contributions of CPI expenditure components not comparable with PCE components ³ 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1			
comparable with CPI components New autos Net purchases of used autos Owner-occupied nonfarm and farm dwellings—space rent Services furnished without payment by financial intermediaries except life insurance carriers Current expenditures by nonprofit institutions Other Current expenditures components not comparable with PCE components ³ New autos Used autos Homeownership Other Curses: Contribution of differences in seasonal adjustment ⁴ 1.1 -1.0 -1.1 -1.0 -1.2 -1.0 -1.3 -1.0 -1.4 -1.4 -1.5 -1.2 -1.5 -			
comparable with CPI components New autos Net purchases of used autos Owner-occupied nonfarm and farm dwellings—space rent Services furnished without payment by financial intermediaries except life insurance carriers Current expenditures by nonprofit institutions Other Current expenditures components not comparable with PCE components ³ New autos Used autos Homeownership Other Curses: Contribution of differences in seasonal adjustment ⁴ 1.1 -1.0 -1.1 -1.0 -1.2 -1.0 -1.3 -1.0 -1.4 -1.4 -1.5 -1.2 -1.5 -	5. Less Contributions of PCE expenditure components not		
New autos		1	-1.0
Owner-occupied nonfarm and farm dwellings—space rent Services furnished without payment by financial intermediaries except life insurance carriers Current expenditures by nonprofit institutions 3 .2 Other		4	1
Services furnished without payment by financial intermediaries except life insurance carriers	·	0	1
except life insurance carriers .1 0 Current expenditures by nonprofit institutions .3 .2 Other 1 1 6. Plus: Contributions of CPI expenditure components not comparable with PCE components ³ 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1		.1	9
Current expenditures by nonprofit institutions .3 .2 Other 1 1 6. Plus: Contributions of CPI expenditure components not comparable with PCE components ³ 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1		1	٥
Other 1 1 6. Plus: Contributions of CPI expenditure components not comparable with PCE components ³ 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1			-
6. Plus: Contributions of CPI expenditure components not comparable with PCE components 3			
with PCE components ³ 1.7 1.2 New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1			
New autos 5 2 Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1	b. Plus: Contributions of CPI expenditure components not comparable with PCE components 3	1.7	1.0
Used autos 3 3 Homeownership 2.9 2.1 Other 4 4 7. Less: Contribution of differences in seasonal adjustment ⁴ .1 1		_	
Homeownership 2.9 2.1 Other			
Other			
	Other		
8 Equals: Consumer Price Index all items—(percent change at annual rate) 13.6 16.0	7. Less: Contribution of differences in seasonal adjustment ⁴	.1	1
5. Equals, Collectific Trice Index, all terms (percent change at annual rate) 10.0	8. Equals: Consumer Price Index, all items—(percent change at annual rate)	13.6	16.9

¹Revised.

²Preliminary.

³Data have been revised by BLS to incorporate new seasonal factors.

⁴These differences arise because component price indexes that are used in the BEA measures and in the CPI are seasonally adjusted at different levels of detail.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, 1980, The business situation, Survey of Current Business 60(5) 1-4.

of new homes, showed a larger increase. One factor that held the CPI home-purchase component rate down was that it is based on data collected from the Federal Housing Administration (FHA), which insures mortgages primarily of lower priced housing. Because the housing component is a major concern in the construction of the CPI, the BLS is studying several alternative means of measuring hous-

ing.⁶ However, the home-purchase component of the CPI, exclusive of financing, was not responsible for a large upward push during 1968-78, suggesting there are downward, as well as upward, forces in action in the CPI.

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CONSUMER EXPENDITURE SURVEY DATA

The Bureau of Labor Statistics has issued an eight-volume publication that includes expenditure, income, and selected family characteristic data for 28 major metropolitan areas in the United States. Each volume is priced separately. For more information write: National

Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Va. 22161. Ask for information on Consumer Expenditure Survey: Integrated Survey Data for Metropolitan Areas, 1972-73 (Publication No. BLS/CES/Suppl-79).

⁶See reference 4 at end of this article.

USERS' GUIDE TO USDA ESTIMATES OF THE COST OF RAISING A CHILD: PART II

Carolyn S. Edwards1

The USDA estimates of the cost of raising a child are derived as standard budget estimates of the average annual expenditures made by families for children from birth to age 18, for eight items in the budget specific to a region in the country, urbanization, and cost level. As with any statistics of such a general nature, adjustments are needed to make the estimates more applicable to specific situations. This article describes such adjustments and their limitations, and provides guidance on the interpretation of the child-cost estimates. Part II is intended to build on part I of the "Users' Guide," which appeared in the Summer 1979 issue of Family Economics Review, and which included:

- A description of what estimates are available.
- Answers to the most frequently asked questions about the use and interpretation of the estimates, including selection of the appropriate region, urbanization, and cost level, and adjustments for changes in price levels.
- Estimates of the cost of raising urban children in the four regions in the country, at three cost levels, adjusted to 1978 annual average price levels.
- A description of additional materials (and references) related to the cost of raising a child, including the USDA budgets for food and clothing, estimates of the costs of higher education and of having a baby, and the BLS Urban Family Budgets.

Table 1 provides the estimates of the cost of raising urban, rural nonfarm, and farm children at the moderate cost level updated to June 1980 price levels.

USE AND INTERPRETATION

Liberal Cost Level

The estimates of the cost of raising a child were developed at levels of living consistent with spending at the cost levels of the USDA food plans². Users often note, however, that the food plans include a liberal cost level, while the urban and rural nonfarm child cost estimates are only available at the economy (thrifty), low, and moderate cost levels. Data limitations prevented the development of urban and rural nonfarm child costs at the liberal level; the farm child cost estimates are at all four cost levels. When users need estimates of the cost of raising urban and rural nonfarm children at the liberal level, they may adjust the moderate cost totals by adding 30 percent. This is an approximation, derived by comparing the differences between the moderate and liberal cost levels of the farm child cost estimates and of the food plan costs. Because different items in the budget do not increase with cost level at the same rate, users should consider this adjustment as a general guideline and increase only the annual and 18-year allitem totals, not the individual budget item cost estimates or their totals.

Metropolitan Location

The child cost estimates are specific to region and urbanization³, but do not reflect differences in costs due to metropolitan location. Users often ask about adjustments that can be made to incorporate such differences. The Bureau of Labor Statistics (BLS) published,

¹Economist, Family Economics Research Group, Science & Education Administration, USDA.

²See table 2 for *general* guidance in the selection of the appropriate cost level.

³See part I of the "Users Guide" for definitions of urban, rural nonfarm, and farm and for the lists of States in each region. Users should note a correction to these lists: Delaware is part of the southern region, not the Northeast as originally and mistakenly listed.

Table 1.a. Annual cost of raising an urban child from birth to age 18, by age, moderate cost level, June 1980 prices²

			ounc 1	oo price	3				
Age of child (years)	Total	Food at home ³	Food away from home	Clothing	Housing ⁴	Medical care	Educa- tion	Transpor- tation	- All other ⁵
NORTH CENTRAL									
Under 1 1	\$3,378 3,487 3,255 3,455 3,583 3,735 3,888 4,162 4,271 4,704 69,232	\$479 588 588 675 654 806 959 981 1,090 1,220 15,274	\$0 0 0 113 113 113 113 135 135 135 1,714	\$121 121 197 197 273 273 273 394 394 546 5,336	\$1,482 1,482 1,302 1,302 1,235 1,235 1,235 1,280 1,280 1,325 23,352	\$198 198 198 198 198 198 198 198 198 198	\$0 0 0 0 81 81 81 81 81 81	\$689 689 600 600 600 600 645 645 712 11,382	\$409 409 370 370 429 429 448 448 487 7,638
NORTHEAST									
Under 1 1 2-3 4-5 6 7-9 10-11 12 13-15 16-17 Total	3,360 3,490 3,400 3,601 3,836 3,988 4,184 4,452 4,583 4,929 73,079	567 697 675 763 763 915 1,111 1,111 1,242 1,373 17,453	0 0 0 113 135 135 135 135 135 158 1,892	121 121 212 212 288 288 288 424 424 531 5,576	1,504 1,504 1,369 1,369 1,347 1,347 1,347 1,392 1,392 1,414 24,962	198 198 198 198 198 198 198 198 198 198	0 0 0 0 101 101 101 101 101 101 1,212	600 600 556 556 556 556 623 623 667 10,586	370 370 390 390 448 448 468 468 487 7,834
SOUTH									
Under 1 1 2-3 4-5 6 7-9 10-11 12 13-15 16-17 Total	3,676 3,785 3,550 3,728 3,920 4,051 4,226 4,513 4,643 5,006 74,996	523 632 610 675 675 806 981 981 1,111 1,220 15,534	0 0 0 113 135 135 135 158 158 158 1,984	136 136 212 212 288 288 288 424 424 546 5,636	1,594 1,594 1,414 1,414 1,347 1,347 1,347 1,392 1,392 1,437 25,368	221 221 221 221 221 221 221 221 221 221	0 0 0 122 122 122 122 122 122 122 1,464	734 734 645 645 645 645 645 689 689 756	468 468 448 448 487 487 526 526 546 8,846
WEST									
Under 1 1	3,618 3,749 3,557 3,779 4,030 4,183 4,379 4,631 4,740 5,214 76,655	523 654 632 719 697 850 1,046 1,046 1,155 1,307 16,343	0 0 0 135 158 158 158 158 158 180 2,210	121 121 197 197 288 288 288 409 409 515 5,424	1,549 1,549 1,392 1,392 1,369 1,369 1,369 1,414 1,414 1,482 25,500	243 243 243 243 243 243 243 243 243 243	0 0 0 0 101 101 101 101 101 1,212	734 734 645 645 667 667 667 734 734 801 12,588	448 448 448 507 507 526 526 585 9,004

¹Child in family of husband and wife and no more than 5 children.

²Costs were updated from estimates in table 2 of "Cost of raising a child—Derived from 1960-61 Survey of Consumer Expenditures, detail tables," CFE (Adm.)-318, 1971, Agricultural Research Service (now the Science and education Administration), USDA. Indexes used are shown in table 4 of this article. Estimates rounded to

³ Includes home-produced food and school lunches.

⁴Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁵Includes personal care, recreation, reading, and other miscellaneous expenditures.

Table 1.b. Annual cost of raising a rural nonfarm child¹ from birth to age 18, by age, moderate cost level, June 1980 prices²

NORTH CENTRAL Under 1	cost level, June 1900 prices-									
Under 1		Total	at	away from	Clothing	Housing ⁴				
Under 1										
6 . 3,353 610 113 258 1,167 176 81 578 370 10-11 3,658 915 113 258 1,167 176 81 578 370 10-11 3,658 915 113 258 1,167 176 81 578 370 112 3,945 915 113 394 1,212 176 81 645 409 13-15 4,064 1,024 113 394 1,212 176 81 645 409 13-15 4,064 1,024 113 394 1,212 176 81 645 409 13-16-17 4,363 1,133 135 485 1,235 198 81 667 429 Total 64,571 14,163 1,580 4,974 21,908 3,256 972 10,940 6,778 NORTHEAST Under 1 3,701 523 0 121 1,594 198 0 778 487 2-3 3,644 610 0 197 1,459 198 0 7718 487 2-3 3,864 697 135 197 1,459 198 0 712 468 4-5 3,866 697 135 197 1,459 198 0 712 468 4-5 3,866 697 158 288 1,437 198 122 712 507 7-9 4,250 828 158 288 1,437 198 122 712 507 10-11 4,446 1,024 158 288 1,437 198 122 712 507 110-11 4,446 1,024 158 288 1,437 198 122 712 507 12 4,726 1,024 158 440 1,482 198 122 756 546 16-17 5,297 1,286 180 576 1,527 198 122 556 546 16-17 5,297 1,286 180 576 1,527 198 122 823 585 Total 78,183 16,059 2,210 5,670 26,628 3,564 1,464 13,346 9,242 SOUTH Under 1 3,832 523 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 1 4,5 3,775 675 135 212 1,369 221 0 734 429 4-5 3,775 675 135 288 1,325 221 101 712 468 7-9 4,034 784 135 288 1,325 221 101 712 468 7-9 4,034 784 135 288 1,325 221 101 712 468 10-11 4,099 959 135 288 1,325 221 101 712 468 10-11 4,094 784 135 288 1,325 221 101 712 468 10-11 4,097 632 0 121 1,616 243 0 890 565 10-11 4,067 632 0 121 1,616 243 0 890 565 10-11 4,067 632 0 121 1,616 243 0 890 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756	Under 1	3,300 2,943	545 523	0	106 167	1,414 1,190	198 176	0	667 556	370 331
12	6	3,484	741	113	258	1,167	176	81	578	370
Total	12	4,054	1,024	113	394	1,212	176	81	645	409
Under 1		,	-			·				
Under 1										
1 3,810 632 0 121 1,594 198 0 778 487 2-3 3,644 610 0 197 1,459 198 0 712 468 4-5 3,866 697 135 197 1,459 198 0 712 468 6 4,119 697 158 288 1,437 198 122 712 507 7-9 4,250 828 158 288 1,437 198 122 712 507 10-11 4,446 1,024 158 288 1,437 198 122 756 546 13-15 4,857 1,155 158 440 1,482 198 122 756 546 16-17 5,297 1,286 180 576 1,527 198 122 756 546 16-17 3,832 523 0 136 1,594 221 0 890 468 13-15 3,353 588 0 212 1,369		3 701	523	0	191	1 504	108	0	779	197
7-9.	1	3,810 3,644 3,866	632 610 697	0 0 135	121 197 197	1,594 1,459 1,459	198 198 198	0 0 0	$778 \\ 712 \\ 712$	487 468 468
Total 78,183 16,059 2,210 5,670 26,628 3,564 1,464 13,346 9,242 SOUTH Under 1 3,832 523 0 136 1,594 221 0 890 468 1 3,919 610 0 136 1,594 221 0 890 468 2.3 3,775 675 135 212 1,369 221 0 734 429 6 3,904 654 135 288 1,325 221 101 712 468 7.9 4,034 784 135 288 1,325 221 101 712 468 10.11 4,209 959 135 288 1,325 221 101 712 468 12 4,533 959 158 440 1,369 221 101 778 507 13-15 4,642 1,068 158 440 1,369 221 101 778 507 13-15 4,642 1,068 158 440 1,369 221 101 778 507 16-17 5,063 1,198 180 622 1,392 221 101 823 526 Total 75,416 15,142 2,072 5,852 24,874 3,978 1,212 13,746 8,540 WEST Under 1 3,958 523 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 4,067 632 0 121 1,616 243 0 890 565 1 2 4,067 632 0 121 1,616 243 1 2 2 756 565 1 2 4,824 1,224 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 10-11 4,495 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 4,821 1,002 135 303 1,369 243 122 756 565 12 1 4,821 1,002 135 303 1,369 243 122 32 3604 13-15 4,952 1,133 158 455 1,414 243 122 823 604 16-17 5 5,443 1,286	7-9	4,446 $4,726$	$1,024 \\ 1,024$	158 158	288 440	1,437 $1,437$ $1,482$	198 198 198	$122 \\ 122 \\ 122$	712 712 756	507 507 546
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16-17 5,443 1,286 180 531 1,504 243 122 934 643	12	4,821	1,002	158	455	1,414	243	122	823	604
·	16-17									
	Total	79,885	15,905	2,072	5,730		4,286	1,464		10,250

¹Child in family of husband and wife and no more than 5 children.

²Costs were updated from estimates in table 2 of "Cost of raising a child—Derived from 1960-61 Survey of Consumer Expenditures, detail tables," CFE (Adm.)-318, 1971, Agricultural Research Service (now the Science and Education Administration), USDA. Indexes used are shown in table 4 of this article. Estimates rounded to nearest \$1.

³Includes home-produced food and school lunches.

⁴Includes shelter, fuel, utilities, household operations, furnishings, and equipment. ⁵Includes personal care, recreation, reading, and other miscellaneous expenditures.

Table 1.c. Annual cost of raising a farm boy from birth to age 18, by age, moderate cost level,

June 1980 prices¹

Age of Child (years)	Total	Food at home	Food away from home ²	Clothing	Housing ³	Medical care	Education	Transportation	All Other
Under 1	\$3,331	\$482	\$0	\$124	\$1,618	\$204	\$0	\$317	\$586
1	3,464	615	0	124	1,618	204	0	317	586
2	3,476	615	0	115	1,618	225	0	317	586
3	3,684	695	128	115	1,618	225	0	317	586
4	3,684	695	128	115	1,618	225	0	317	586
5	3,684	695	128	115	1,618	225	0	317	586
6	4,375	847	114	161	1,618	229	503	317	586
7	4,375	847	114	161	1,618	229	503	317	586
8	4,375	847	114	161	1,618	229	503	317	586
9	4,561	981	166	161	1,618	229	503	317	586
10	4,610	981	166	210	1,618	229	503	317	586
11	4,610	981	166	210	1,618	229	503	317	58 6
12	4,830	1,179	188	210	1,618	229	503	317	586
13	4,830	1,179	188	210	1,618	229	503	317	586
14	5,602	1,179	188	251	1,618	229	503	1,048	586
15	5,787	1,303	249	251	1,618	229	503	1,048	586
16	5,782	1,303	249	246	1,618	229	503	1,048	586
17	5,782	1,303	249	246	1,618	229	503	1,048	586
Total	80,842	16,727	2,535	3,186	29,124	4,056	6,036	8,630	10,548

¹Costs were updated from estimates in tables 1 and 2 of "The cost of raising farm children," 1978, (talk by Carolyn S. Edwards and Brucy Gray, at the Food and Agricultural Outlook Conference, November 1978, USDA, Washington, D.C., condensed in Family Economics Review, Winter 1979), using indexes (updated to June 1980, Consumer Price Index, Bureau of Labor Statistics, U.S. Department of Labor) as indicated in table 3 of that talk. Estimates for farm girls are also available from that source.

as part of their Urban Family Budget program, indexes of intercity costs (3, 5). These indexes, which are based on the costs of the family budgets at three cost levels in 23 metropolitan areas in the continental United States, use costs in the urban United States as a base (=100). For use with the estimates of the cost of raising a child, these indexes have been recalculated (using published and unpublished data) by using urban costs in each region as the base (table 3). The three cost levels defined by BLS are derived in a different manner than the four cost levels defined by the USDA for the food plans, and thus do not coincide. On a general basis, however, the use of the BLS intermediate index is acceptable to adjust the USDA moderate cost level, the higher index

to adjust the USDA liberal cost level, and the lower index to adjust the USDA low cost level. There is no BLS index comparable to the USDA economy or thrifty cost level; the best one can do is apply the BLS lower cost index. For example, a family living in the Washington, D.C., metropolitan area at the moderate cost level would increase the USDA estimates of the cost of raising a child for the southern region by 20 percent to reflect their metropolitan location within the region.

Users have asked if it is appropriate to use the Consumer Price Indexes (CPI) specific to city population size classes or metropolitan locations to adjust the child cost estimates for a location. While these indexes provide information on relative changes in prices over time,

²Includes home-produced food and school lunches.

³Includes shelter, fuel, utilities, household operations, furnishings, and equipment

⁴Includes personal care, recreation, reading, and other miscellaneous expenditures.

Table 2. Food plans by size and income of family, summer 1980

Income (before taxes)	1-person families	2-person families	3-person families	4-person families	5-person families	6-person families
\$2,500 to \$5,000	Thrifty ¹ or Low-cost	Thrifty ¹ or Low-cost	Thrifty ¹	Thrifty ¹	Thrifty ¹	Thrifty ¹
\$5,000 to \$10,000	Moderate-cost	Low-cost	Thrifty ¹ or Low-cost	Thrifty ¹	Thrifty ¹	Thrifty1
\$10,000 to \$15,000	Liberal	Moderate-cost	Low-cost or moderate-cost	Low-cost	Thrifty or Low-cost	Thrifty ¹
\$15,000 to \$20,000	Liberal	Liberal	Low-cost or moderate-cost	Low-cost or moderate-cost	Low-cost	Thrifty or Low-cost
\$20,000 to \$30,000	Liberal	Liberal	Moderate-cost or Liberal	Low-cost or moderate-cost	Low-cost or moderate-cost	Low-cost
\$30,000 to \$40,000	Liberal	Liberal	Liberal	Moderate-cost or Liberal	Moderate-cost	Low-cost or moderate-co
\$40,000 to \$50,000	Liberal	Liberal	Liberal	Moderate-cost or Liberal	Moderate-cost or Liberal	Moderate-co
\$50,000 or more	Liberal	Liberal	Liberal	Liberal	Moderate-cost or Liberal	Moderate-co or Liberal

¹Many families of this size and income are eligible for assistance through the Food Stamp Program.

Source: Updated from USDA, Science and Education Administration, 1979, Family Food Budgeting—For Good Meals and Good Nutrition, HG 94.

Note: The economy level of the child rearing cost estimates would be used wherever the thrifty plan is indicated above.

they do not provide an adjustment for the initial differential between costs in the regions and costs in more specifically defined locations. Users who have incorporated this difference by adjusting the estimates for metropolitan location with one of the 23 indexes in table 3 could, however, appropriately use the CPI for the corresponding metropolitan location to make adjustments for changes in prices over time.

Alternate Indexes for Price Level Adjustments

Indexes and instructions for updating and backdating the individual budget item estimates and the all-item totals to price levels prevalent from 1953 to August 1980 are provided in table 4. These indexes are from the U.S. city average, Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W). Users have asked if it would be more appropriate to use the Consumer Price Indexes

that are specific to a region to adjust the price levels of the region-specific child cost estimates. Use of the regional CPI's would provide more precise adjustment for movements in prices by region than the indexes listed in table 4. Similarly, the CPI's that are specific to metropolitan locations would provide more precise price adjustments to child cost estimates that had been adjusted to corresponding metropolitan location cost differences as described in the previous section. However, the metropolitan-specific indexes are not available as a continuous series over a long period of time, as are those in table 4, and thus do not allow for adjustments over long spans of time. While recent changes in these indexes will allow their use in the future, the U.S. city average CPI's provided in table 4 are generally applicable to all the child cost estimates and are more readily available. They provide a continuous series covering a substantial time span and are thus suggested as most appropriate.

Table 3. Indexes of comparative costs—Metrolpolitan locations and the urban areas of their respective regions, autumn 1979

[Urban average cost for each region = 100]

Region	Lower	Intermediate	Higher
NORTH CENTRAL			
Chicago, Ill,-northwestern Ind	103	102	102
Cincinnati, Ohio-KyInd.	98	100	98
Cleveland, Ohio	100	103	102
Detroit, Mich.	100	103	104
Kansas City, MoKans.	97	97	99
Milwaukee, Wis	101	106	105
Minneapolis-St. Paul, MinnWis.	102	106	108
St. Louis, MoIll.	99	99	99
NORTHEAST			
Boston, Mass	106	108	108
Buffalo, N.Y	97	97	94
New York-northeastern, N.J.	101	106	111
Philadelphia	100	95	92
Pittsburgh, Pa	97	88	85
SOUTH			
Atlanta, Ga	100	102	103
Baltimore, Md	110	110	112
Dallas, Tex	100	99	100
Houston, Tex	104	103	103
Washington, D.CMdVa.	117	120	121
WEST			
Denver, Colo	94	102	102
Los Angeles-Long Beach, Anaheim, Calif	101	99	102
San Diego, Calif	98	100	102
San Francisco-Oakland, Calif	105	107	108
Seattle-Everett, Wash	105	103	100

Source: Derived from published (5) and unpublished cost estimates of the U.S. Department of Labor, Bureau of Labor Statistics' urban family budgets and population weights used in the urban family budgets (3, p. 37).

Future Cost Projections

As described in part I of the "Users' Guide," the child cost estimates may be used in constant dollar form (table 1) or may be adjusted to current dollars. In part I, a current dollar example provided estimates of the annual and total costs of raising a child born in 1960. This reflected not only changes in costs associated with the growth of the child and family composition adjustments but also showed price changes actually experienced over the 18 years of the child's life. By assuming a rate of future inflation, it is also possible to adjust the cost

estimates forward and thus arrive at a projected cost to raise a child. For example, the estimated annual cost of raising a 5-year old in an urban, north-central family spending at the moderate-cost level is \$3,065 in 1979 dollars. Assuming an annual rate of inflation of 8 percent, the cost in 1984 for a 5-year old (a child born in 1979) would become \$4,503. To arrive at this figure, the estimated annual cost of raising a 5-year old in 1979 prices was inflated, assuming 8 percent annual inflation compounded over 5 years—the number of years until the child would reach age 5, in 1984.

Annual average Consumer Price Index data for updating and backdating estimates of the cost of raising children (1967 = 100) Table 4.

Annual totals of all budget item categories	All items ³	249.6 244.8 244.8 195.3 107.7 106.0	86.6 84.3 80.2 80.5 80.1
All other	Personal care and personal and educational expenses averaged ²	223.3 2204.9 220.8 1904.9 155.8 147.6 118.1 118.1 100.0 100.0 95.6 97.3 97.3 99.6 99.6 99.6	85.4 82.4 79.5 77.3 77.0
Transpor- tation	Transpor- tation	253.5 250.6 250.6 185.8 177.2 165.5 1150.6 113.7 103.2 100.0 97.2 95.9 97.2 97.2 97.2 97.2 97.2 97.2 97.2 97	86.0 83.3 78.8 77.4 78.3
Education	Personal and educational expenses ²	231.8 229.8 229.8 198.2 157.9 144.4 122.8 1122.8 119.3 100.0 95.9 95.9 97.5 97.5 87.3	83.9 80.7 77.8 76.7 76.9
Medical care	Medical care	270.0 2265.9 219.4 200.1 168.6 150.5 1132.5 128.4 100.0 100.0 100.0 87.3 87.3 87.3 87.3 87.4 79.1	73.2 69.8 67.2 64.8 63.4 61.4
Housing	Housing	265.8 227.5 2202.6 189.6 177.2 129.2 129.2 110.0 100.0 97.2 91.7 91.7 90.3	87.7 86.2 83.6 82.3 81.7 80.8
Clothing	Apparel and upkeep	177.9 176.0 166.4 159.5 159.5 142.3 126.8 119.8 110.0 100.0 96.1 96.1 97.7 90.9 90.9	87.5 87.3 85.8 84.1 84.5
Food away from home	Food away from home	272.8 269.9 244.4 218.3 200.3 186.1 174.3 159.4 111.4 1126.1 1100.0 95.1 95.1 95.1 88.9 88.9 87.3 87.3 87.3	77.2 74.9 72.2 70.8 70.1 68.9
Food at home	Food at home	255.6 232.5 209.9 190.2 179.2 175.8 162.4 181.4 116.4 118.7 100.0 100.3 95.5 97.2 97.2 97.2 97.2 97.2 97.2	91.0 87.2 84.4 84.1 85.8 86.2
Child cost budget category	CPI sub	1980 (Aug.) 1980 (June) 1979 1978 1977 1976 1975 1972 1972 1970 1968 1966 1965 1965 1967 1967	1958 1957 1956 1955 1954

¹ The Revised Consumer Price Index for urban wage earners and clerical workers (CPI-W) replaced the unrevised CPI; use the revised indexes as shown for adjusting estimates to

price levels prevalent in 1978 and forward; use the unrevised CPI as shown for adjusting estimates to price levels from 1953-77.

In changing to the revised CPI to adjust the estimates of the cost of raising a child (table 1), the "Personal and educational expenses" index replaced the "Reading and recreation" index replaced to the "Personal care" and the "Personal and educational expenses" index est replaced the average of the "Personal care" and the "Personal and recreation" indexes.

Users who do not want to carry out all the individual budget item calculations and who are interested only in the annual, all budget item to CPI for all items without a great deal of distoriton from the price adjusted totals that are obtained by applying the Individual subindexes and then summing over the adjusted budget item costs.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Note: To adjust the price levels of the estimates of the cost of raising a child to specific year price levels, multiply the June 1980 estimates for each budget category by the index for that category for the desired year and divide the product by the corresponding index for June 1980. For example, the update June 1980 costs for housing to August 1980 prices, multiply the June 1980 estimate for housing by 265.8 and divide by 266.9. To backdate June 1980 costs for housing to 1968 prices, multiply the June 1980 estimate for housing by 104.2 and divide by 266.9.

Thus, the projected cost for any given year of age, specific to prices assumed prevalent in a given year, may be represented by the following formula:

$$CRC_F = CRC_P (1+i)^n$$

where:

CRC_F = future or projected annual cost of raising a child of a given age in a given year

CRC_P = present cost of raising a child of that age, in current dollars

i = assumed rate of inflation per time interval

n = number of time intervals from present to time child will reach that age

or: \$4,503 = \$3,065 (1.08)⁵. To arrive at a total for 18 years, the formula must be applied for each year. For example, assuming an annual rate of inflation of 8 percent over the first 18 years of the child's life, the cost of raising the child born in 1979 would be \$134,414 (table 5).⁴

Users should be reminded that such adjustments only capture changes in prices. To the extent that families have changed their allocation of total resources or have changed their allocation of resources among family members or among components of child costs, the price adjusted estimates of the cost of raising children still reflect only those expenditure patterns as captured by the original data-patterns of the early 1960's in the case of the urban and rural nonfarm estimates, and patterns of the early 1970's in the case of the farm estimates. Expenditure patterns tend to be relatively stable over time, however, and examination of the data from the 1972-73 Survey of Consumer Expenditures indicates that there have not been dramatic changes between the

early 1960's (when data used for the urban and rural nonfarm child cost estimates were collected) and 1972-73 (1, 2, 4). It is probably not unreasonable then to speculate that new estimates of the cost of raising children developed on more recent data bases, allowing for data base and methodological differences, will not be dramatically different from the current estimates. Therefore, although users of the current urban and rural nonfarm estimates are unable to adjust for changes in expenditure patterns and may only make adjustments for changes in prices, it is probably reasonable to assume that major adjustments for changes in expenditure patterns for families similar to the original families in the data base are not necessary.

Family Size

The estimates of the cost of raising urban and rural nonfarm children reflect average costs per child in families with not more than five children. Size-specific estimates developed for 2-, 3-, 4-, and 5-child families indicate that total costs per child decrease as family size increases⁵. Costs in 5-child families average 20 to 24 percent below those in 2-child families. Cost differences between 2- and 3-child families and 3- and 4-child families are about the same, ranging between 7 and 12 percent. Costs between 4- and 5-child families decrease only 4 or 5 percent. Costs for each item in the budget, however, do not change consistently with changes in family size. Food costs decrease less than other costs when family size increases. Although there are some savings in buying and cooking for a larger family, requirements increase in almost direct ratio to the number of children. Food costs per child are 12 to 13 percent less in a 5-child family than in a 2-child family. Housing and transportation costs, on the other hand, show the greatest decreases when family size increases. Much housing space is used in common, and trips with the automobile serve more than one child. In these categories costs per child in a 5-child family may be as much as one-third less than in a 2-child family.

⁴If annual all-item totals are all that are needed, these calculations can be applied to the annual totals, as in the above exemple. To arrive at the item estimate breakdown in table 5, the calculations were carried out for each budget item estimate and then totaled. Except for rounding error, either method will yield the same totals.

⁵See Family Economics Review, December 1970, pp. 16-17.

Table 5. Projected cost of raising a child 1 born in 1979 in the urban North Central region at the moderate cost level; prices are current for each year specified, assuming 8 percent annual inflation²

Year	Age of child	Total		Food away from home	Clothing	Housing ⁴	Medical care	Education	Transpor- tation	All other
1979	Under 1	\$2,972	\$450	\$0	\$115	\$1,263	\$179	\$0	\$585	\$380
1980	1	3,319	596	0	124	1,364	193	0	632	410
1981	2	3,361	644	0	217	1,295	209	0	595	401
1982	. 3	3,627	695	0	234	1,398	225	0	642	433
1983	4	4,171	863	139	253	1,510	244	0	694	468
1984	5	4,503	932	150	273	1,631	263	0	749	505
1985	6	5,060	974	162	409	1,669	284	121	809	632
1986	7	5,710	1,297	175	442	1,803	307	130	874	682
1987	. 8	6,168	1,401	189	478	1,947	331	141	944	737
1988	9	6,661	1,513	204	516	2,103	358	152	1,019	796
1989	10	7,501	1,943	220	557	2,271	386	164	1,101	859
1990	11	8,102	2,098	238	602	2,453	417	177	1,189	928
1991	12	9,378	2,317	307	939	2,745	451	191	1,380	1,048
1992	13	10,407	2,782	332	1,014	2,964	487	207	1,490	1,131
1993	14	11,242	3,005	358	1,096	3,202	526	223	1,610	1,222
1994	15	12,140	3,245	387	1,183	3,458	568	241	1,738	1,320
1995	16	14,468	3,923	418	1,768	3,868	613	260	2,069	1,549
1996	17	15,624	4,237	451	1,909	4,177	662	281	2,235	1,672
Total		134,414	32,915	3,730	12,129	41,121	6,703	2,288	20,355	15,173

¹Child in family of husband and wife and no more than 5 children.

Because the family size-specific estimates are available for only a few regions and urbanizations, users often ask how the estimates for children in urban and rural nonfarm families of average size may be adjusted to reflect differences in family size. While the percentage differences due to family size, as indicated by the estimates specific to family size, are not directly applicable to the estimates for all families, they do provide an indication of adjustments that can be made. However, to apply the percentage differences from the sizespecific estimates to the estimates for all families, it is necessary to accept a generalization about the family size underlying the latter. Most families whose expenditure patterns formed the basis of the estimates had three or four children. On the average the estimates for very young children (the first 2 years) and for older children (ages 16 and 17)

were based on expenditure patterns of families with three children, while the estimates for other ages (2 to 15) were based on families with an average closer to four children, reflecting changes in family size coincident with the family life cycle.⁶ Given this generalization and the percentage differences between families of different sizes, as indicated by the size-specific estimates, the estimate for a 10-year

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²Estimates in table 2 of "Cost of raising a child—Derived from 1960-61 Survey of Consumer Expenditures, detail tables," CFE (Adm.)-318, 1971, Agricultural Research Service (now the Science and Education Administration), USDA, were updated to 1979 price levels using indexes shown in table 4 and rounded to the nearest \$1. These costs were inflated at an annual rate of 8 percent.

³Includes home-produced food and school lunches.

⁴Includes shelter, fuel, utilities, household operations, furnishings, and equipment.

⁵Includes personal care, recreation, reading, and other miscellaneous expenditures.

⁶For example, the average family size of families whose expenditures formed the basis of the estimate for urban 10-year-olds was 5.6 to 5.8, depending on region, and 5.9 to 6.0 in the estimate for rural nonfarm 10-year-olds (Pennock, J. L., 1970, Cost of raising a child, talk at the 47th Annual Agricultural Outlook Conference, February 1970, U.S. Department of Agriculture, Washington, D.C.).

old urban or rural nonfarm child, for example, could be increased by 7 to 12 percent for a family with three children and decreased by 4 to 5 percent for a family with five children. This adjustment for family size, however, is very approximate and, like the adjustment for estimating the liberal cost level from the moderate cost level, is best applied only to the annual, all-item totals, and not to the estimates for individual budget items or their totals.

Users also often ask if the estimates are additive; that is, if the age-specific per child estimates can be added together to obtain a total cost of families with a given number of children. Generally, for families of a size similar to the original data families (husband, wife, and three to four children), the estimates are probably additive. As family size departs from five or six persons (three to four children) errors will be most substantial for those items in the budget most subject to savings due to economies of scale—housing and transportation—which are based on per person expenditures in the estimates.

Families Facing Change

Users often request information on the use and interpretation of the child-cost statistics in situations where it is necessary to estimate costs for families anticipating change, such as the arrival or departure of family members or the separation of an existing household into two. There may be confusion about the appropriateness of the estimates in such circumstances and factors that need to be taken into account.

The USDA estimates of the cost of raising a child are estimates of average rather than marginal costs. Average costs reflect the longrun average expenditures of families with varying age and sex compositions and are based on data including some families making adjustments in the survey year and others not. Marginal costs reflect incremental changes in family expenditures or changes in income necessary to maintain level of living when there is a change in family structure, and are based on the differences in expenditures of families of differing compositions. Average cost estimates emphasize the actual, total costs of children, whereas marginal costs emphasize changes in family costs. For example, family food expenditures may actually decrease with the addition of a child because of changes in eating patterns less expensive foods may be prepared or eating out may be curtailed. This incremental or marginal value, however, is not a reflection of the cost of food for a child. The USDA average cost estimates include costs incurred for the individual child as well as his or her share of family overhead costs. As a result, a family that adds a child to their household would not necessarily expect to have their expenses increased by the total cost shown in the tables, nor would a family whose oldest child leaves home necessarily have their expenses decreased by the total value of the estimated cost for a 17-year-old.

Families experience change and make adjustments in many ways. Consequently, marginal costs could be substantially higher or lower than average costs, depending on what change is specified and what position the family is starting from. For example, housing and transportation costs could increase very little with the addition of a child. On the other hand, if the addition of a child resulted in the family's moving into different housing or otherwise making a substantial change in living arrangements, costs could increase dramatically. Changes in the age of children affect costs per child, as do changes in family size. Thus, more living space may be needed even if there has been no change in family size.

Depending on the uses and interpretations desired, the use of average or marginal cost estimates may be more appropriate. Researchers interested in explaining fertility behavior and the development of human capital find marginal cost estimates relevant (see references 9, 14, 16, 18, 19). In this vein, Espenshade (9), Lindert (14), and Turchi (19) approached the estimation of marginal costs with different methodologies. Policymakers interested in the estimation of incremental costs incurred by families taking in foster children would probably find marginal costs more useful, but would not want to ignore average cost estimates that provide insight into overall costs incurred for a child.

In child-support costs, the distinction may be more difficult. While an estimate of the incremental cost of taking custody of a child is appealing, there are limitations. There may be difficulties, for example, in determining which family member should be regarded as

marginal. Should the children be considered marginal members of the custodial parent's household? In such a case, the custodial parent would be responsible for the full overhead cost and receive no benefit from economies of scale for goods which the child might consume a major share of. On the other hand, should the parent be considered the marginal member, therefore implying child-support payments should cover the entire overhead cost? For example, considering the child as the marginal member would imply that the cost of housing the child would be the value of the increase in housing expenditures incurred if the custodial parent found it necessary to move to a large dwelling. That cost, however, would reflect only, the extra space purchased by the increased expenditure, such as an additional bedroom, not the overhead cost of the other portions of the unit, such as the kitchen and living room, which the child also uses. In the situation of estimation of child support, average and marginal costs differ in their implications regarding who shall bear costs.

Use of the estimates in child-support situations poses other difficulties, particularly because the estimates reflect expenditure patterns of intact, husband and wife families. For example, the choice of cost level of the estimates, as indicated by table 2, is based on family size and income. In the case of family separation, however, a total income that previously supported one family unit will be used to support two. Overhead costs incurred on the basis of that resource level, such as for housing, will increase. Additional costs associated with maintaining two households will be incurred. When available, actual costs that will be incurred, particularly for housing, should replace the estimated costs. Users, of course, must evaluate the specifics of their own situations and decide at what level children should, and practically, can be supported, and how the costs will be divided. The estimates cannot address such issues, but can provide general guidance on costs that may be incurred and how they vary by age of the child.

Other Direct Costs

The child cost estimates are derived from data on family expenditures for a wide variety of goods and services. Despite the detail that is provided by the data, though, it is often

impossible to isolate expenditures on particular items in the budget or to attribute expenditures to particular family members. As a result, some costs associated with raising a child of a given age, while not explicitly estimated for that age, are allocated among family members and are thus implicitly included in the costs over the age span. For example, the costs of having a child are not estimated as a lump sum assigned to the first year of life. Family expenditures for medical care, medical insurance premiums, and furnishings and equipment are apportioned among family members. Items purchased in the preceding year in anticipation of the birth in the survey year could not be included. Costs for infants clothing could be identified and therefore are included in the first year. On the other hand, expenditures for maternity clothing could not be separated from total costs for women's clothing. Although "Users Guide" part I summarized a study of the costs of having a baby, to assume that such costs should be added to the child cost estimates would not be appropriate. Adding what can be accepted as the average cost of birth would create considerable duplication, particularly if the costs include purchases for the first child, such as nursery furnishings, that likely would not be incurred for the second or third child.

Some costs are beyond the age range of the estimates and clearly are not included. Costs for higher education are not included and may, therefore, be appropriately added (see p. 30). In addition, costs associated with family circumstances that are different from the circumstances of the families from the original data may also be taken into consideration (see p. 30).

OTHER MATERIALS RELATED TO THE COST OF RAISING A CHILD

Indirect Costs

The child cost estimates include only direct, monetary costs incurred as reflected by actual expenditure data. No account is made for the value of time or personal services performed by family members, for the value of earnings foregone in time spent raising children, or for the impact on career opportunities and development due to time out of the labor force. Indirect costs such as these, however, are sub-

stantial. Reed and McIntosh (17) and Espenshade (10) combined the USDA direct cost estimates with independent estimates of the indirect costs and concluded the latter to represent as much as two-thirds of the total costs.

Users interested in the topic will find Espenshade's (10) monograph an interesting discussion of actual and perceived values and costs of children in the less developed countries and the United States. Culley, Van Name, and Settles (7) and Hawrylshyn (11) discussed some of the approaches to measuring indirect costs. Researchers (6 to 19) interested in human capital, labor force participation, fertility behavior, and inter- and intra-family transfers have taken the value of the indirect costs of children into account.

The Changing American Family

The estimated costs of raising urban and rural nonfarm children are based on data collected in 1960-61 from husband-wife families with no more than five children and no other persons present. The families generally tended to have three and, more often, four children. Total costs per child over the 18-year span represented by the estimates, in constant 1960-61 dollars, consumed 15 to 17 percent of the family income. It is probably reasonable to assume that most of these nuclear families were also single-earner families.

family has experienced dramatic changes since the early 1960's (20 to 39). When these estimates are used as guidelines for families of types other than the nuclear structure underlying the estimates, users should consider how specific circumstances might differ from those of the original data families. Families of differing structure are likely to have different spending patterns which may affect total costs as well as costs for specific categories. For example, expenses for transportation are affected by the number of fulltime earners employed outside the home; the number of full-time earners, however, is likely to be smaller in families with one adult than those with two. Many costs which were likely hidden or indirect for the one-earner, nuclear family typical of the 1960's may be explicit, direct costs today. Child care costs are an ideal example (26). Users in many situations may be advised to add in explicit child care costs to the baseline estimates. In addition, indirect costs have generally taken on greater importance. As more women enter the labor force or become eligible for better paying positions and as it becomes more essential for parents to work outside the home, the economic value of time is more likely to be taken into consideration. As a result, the opportunity costs involved with remaining home to care for children are perceived by families as more important.

Higher Education

The estimates of the cost of raising a child do not include costs for education beyond high school. Part I of the "Users Guide" summarized estimates of higher education costs which are published annually by the National Center for Education Statistics of the U.S. Department of Education (41). Estimates for the 1979-80 academic year (the most recent available) indicate that costs for tuition and fees, per academic year, range from about \$380 to \$820 for public institutions, and from about \$1,920 to \$3,970 for nonpublic institutions, depending on the type of institution-2-year, 4-year, or university. Estimated costs for room and board per academic year range from about \$1,420 to \$1,620 for public institutions, and from about \$1,720 to \$2,140 for nonpublic institutions, again depending on type of institution. Total estimated, tuition and fees and room and board costs for academic year 1979-80, are about \$1,800 for 2-year public schools and \$3,650 for 2-year nonpublic schools. Total estimated costs are about \$2,170 for public 4-year institutions and \$4,500 for nonpublic 4-year institutions, while total costs for public universities are estimated at \$2,450, compared to \$6,110 for nonpublic universities. Another publication from the same Center projects costs at three levels to the 1988-89 academic year (40).

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RENT OR BUY: HOUSING ALTERNATIVES

Rent or Buy? Evaluating Alternatives in the Shelter Market, a bulletin from the Department of Labor, Bureau of Labor Statistics, describes a method of analyzing the financial costs and benefits of owning a home compared to renting in combination with a program of regular monthly savings over a specified period of time. First issued in 1974, the bulletin has been updated and covers current economic conditions that affect shelter decisions. The wide variety of choice in today's shelter market, the mobility of American families, and the opportunities for return on savings in investments other than housing have all contributed to the complexity of decisions on whether to rent or buy one's housing needs.

Included in "Rent or Buy" are sections on:

• Financial differences between owning and renting. A method of determining the proportion of income to spend for shelter is given and comparison is made of the percent of income spent by renters and homeowners. How shelter costs are affected by tax benefits, changes in

home purchase prices, and mortgage interest rates are discussed.

- Analyzing shelter costs and returns. Procedures are given for estimating the cost of owning a house, which includes the downpayment, settlement costs, the monthly mortgage payment, and other monthly outlays for real estate taxes, property insurance, maintenance and repairs, and utilities. Also considered is the potential benefit of homeownership in the reduction of the amount of personal income tax; estimating the net proceeds from the sale of a house; and alternative investment opportunities.
- Comparing investment returns from owning and renting. Step-by-step calculations with work tables are given to estimate how much you could spend for rented shelter and be able to equal the investment gains from home ownership.

This bulletin No. 2016 (Stock No. 029-001-02309-0) may be ordered for \$1.75 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20401.

WORK-RELATED TRANSPORTATION COSTS¹

By Joan C. Courtless²

Private Transportation Costs

Approximately two-thirds of the gasoline used on the U.S. highways is consumed by household-owned vehicles³ for transportation to work, for shopping and other household business, and for social, educational, civic, religious, and other activities. The largest share of

household vehicle usage is work related. In 1970, the Nationwide Personal Transportation survey indicated 40 percent of annual miles driven and 35 percent of household trips were for the purpose of earning a living.⁴ Since that time, longer home-to-work distances and an increasing proportion of employed-wife households are likely to have increased the share that is work related.

Driving alone is the usual means of transportation to work for most employed household heads (table 1), although driving alone costs

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¹Unless otherwise noted, costs are updated to 1980, using the June 1980 Consumer Price Index (CPI-W) to estimate annual average.

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³U.S. Department of Energy, End Use Energy Consumption Data Base: Transportation Sector, February 1980.

⁴U.S. Department of Transportation, Federal Highway Administration, 1972, Nationwide Personal Transportation Study—Household Travel in the United States, Report No. 7.

Table 1. Household head's principal means of transportation to work, 1977

	,				
Mode of transportation	All U.S.	Metro	Non- metro		
		Percent			
Total	100.0	100.0	100.0		
Drives alone	70.8	71.5	69.0		
Carpools	16.2	15.0	19.1		
Mass transportation	5.4	7.6	.5		
Walks, or works					
at home	6.3	4.7	9.9		
Other	1.3	1.2	1.5		

Source: U.S. Department of Commerce, Bureau of the Census, and U.S. Department of Housing and Urban Development, 1979, Annual Housing Survey: 1977, United States and Regions, Part A: General Housing Characteristics.

were approximately 75 percent more per person than a two-person carpool (fig. 1). The cost of owning and operating an automobile increased 6 to 7 cents per mile between 1976 and 1979, with the cost of gas and oil taking an increasing proportion of the total costs (fig. 2). The average price that consumers pay for gasoline reached \$1 in October 1979 and had increased an additional 22 cents by October

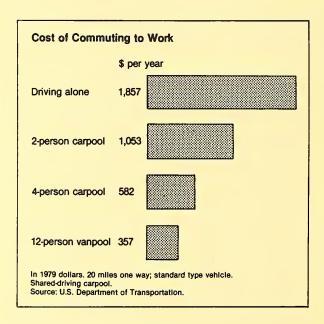


Figure 1

1980, when this issue of Family Economics Review went to press. The Consumer Price Index for gasoline has more than tripled since 1972-73, while maintenance and repair costs have almost doubled in this time period. By comparison increases in public transportation costs have been less severe, as shown in table 2.

Table 2. Selected indexes of consumer prices

Consumer Price Index	1972-73	1980	Percent increase 1972-73 to 1980 ¹
All items	129.2	247.8	91.8
Transportation	121.8	250.6	105.7
Private	119.5	250.8	109.7
New cars	111.0	179.4	61.6
Used cars	114.0	200.8	76.1
Gasoline	112.8	377.6	234.8
Maintenance			
and repairs	138.6	268.0	93.4
Other	128.4	227.3	77.0
Public	144.1	234.9	63.0

¹To compute 1980 costs as percent of 1972-73 costs, add 100 percent to figures reported in this column.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index.

Data from the Bureau of Labor Statistics' 1972-73 Consumer Expenditure Survey were used to compare number of cars owned and expenditures of gasoline and oil (excluding recreation trips and recreational vehicles) for households with only the husband employed and those with both spouses employed. The percentage of each group who owned one versus two or more cars was about the same whether the wife's employment was full time or part time, and only slightly higher for employed versus nonemployed wife households. However, expenditures for gasoline and oil are estimated to be about \$151 higher and vehicle maintenance and repair to be about \$47 higher in the employed wife household.⁵

⁵Estimated using data from the Consumption Expenditure Survey in a regression equation in which overall level of living, number of persons 16 and over, number of cars, and use of public transportation for work were held constant. Estimates based on husband-wife families with children; updated to 1980 costs.

Public Transportation Costs

While only 5 percent of employed household heads regularly use public transportation to work (table 1), data from the 1972-73 Consumer Expenditure Survey indicated that 8 percent of households with an employed head made some use of public transportation to work. Public transportation to work accounted for about one-half of all public transportation use by survey families. Six percent of households in which the head only was employed and 10 percent of households in which both head and spouse were employed reported an expenditure for public transportation to work during the survey year. However, the amount of the expenditure was about the same whether the head only (\$556) or both spouses (\$548) were employed. Households living in large cities and their surrounding suburbs were more likely to use public transportation than households living in smaller cities or in rural areas (table 3). Households living in the largest metropolitan areas accounted for 81 percent of all households who reported expenditure for public transportation and 86 percent of the total spent. Approximately one-half of households who used public transportation to work did not own a car. Their average expenditure did not differ from that of car-owning households.

Table 3. Households using public transportation to work, by metro status and employment status of head and spouse

Area	Household having expenditure
	Percent
Largest metro areas ¹	16
Only head employed	12
Wife also employed	20
Other metro areas	4
Only head employed	2
Wife also employed	5
Nonmetro areas	2
Only head employed	1
Wife also employed	2

^{11,000,000} or more population.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Consumer Expenditure Survey 1972-73 data.

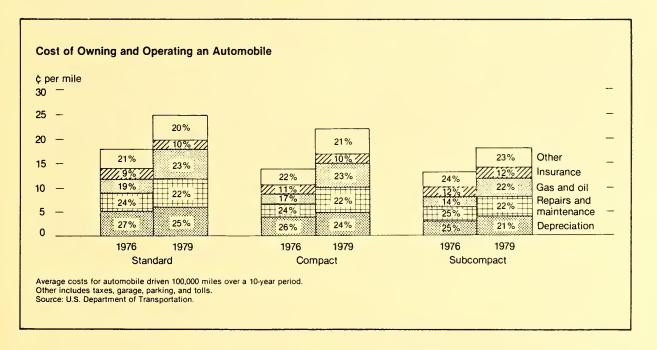


Figure 2

WHITE HOUSE CONFERENCE ON FAMILIES RECOMMENDATIONS RELATING TO THE ECONOMIC WELL-BEING OF FAMILIES

By Cynthia L. Jennings¹

The White House Conference on Families (WHCF) was called by President Carter to "examine the strengths of American families, the difficulties they face, and the ways in which family life is affected by public policies." Consisting of a combination of national and State activities, the Conference process encouraged the involvement of as many lay and professional people as possible. The Conference process began in September 1979 with a series of national hearings in seven different geographic locations. Between January and April 1980, almost all of the States and territories held a variety of State activities to involve families in the selection of delegates and priority issues. Each State was asked to report their 10 highest priority topics, with three issues and policy and program recommendations under each topic.

While the hearings and State activities were going on, many national organizations were holding conferences on the family and identifying family issues that they felt most needed to be addressed. Also, a national research forum on family issues was held and the Gallup organization conducted a national poll of American families. All of these activities (hearings, State activities, national organizations, research forum, and poll) supplied resources used to prepare the background material for the delegates attending the three national Conferences held in June and July 1980 in Baltimore, Md., Minneapolis, Minn., and Los Angeles, Calif. The national task force consolidated the recommendations from the three national Conferences into one report which will be presented to the President and to Congress before the end of 1980.

The Conference covered a broad range of issues important to families. This article, however, will deal only with those concerns

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and recommendations related specifically to the economic well-being of families and those receiving broad support by participants in Conference activities. The issues dealing with the economic well-being of families stress a total economic environment, that is, the recommendations emphasize general economic, tax, and employment policies.

Employment and Work

Economic well-being in the United States is largely measured by income, and for most Americans, income is derived from work. Employment issues, not surprisingly, comprised a large portion of topics discussed at the WHCF. Recommendations covered areas such as unemployment, workplace policies, and the home as a workplace.

Unemployment was cited at the WHCF national hearings as a key factor in the disruption of family life. Witnesses claimed unemployment was the cause of many family problems, such as juvenile delinquency, family violence, drug and alcohol abuse, and divorce. A total of 23 states addressed the problem of unemployment and made recommendations for: (1) A national full employment policy; (2) job creation efforts, such as tax incentives to businesses, especially for youth, minorities, aged, and displaced homemakers; (3) increased job training and early career education; and (4) efforts to decrease job discrimination. Recommendations from the three national Conferences (see table) were similar to the State recommendations. Several recommendations called for the implementation of the Humphrey-Hawkins Full Employment Act² and targeted employment programs for teenagers, minorities, and women. Delegates were also concerned about the effect of discrimination on employment and job opportunity.

With more dual-career families and singleparent families, many workers and employers

²P.L. 523 of the 95th Congress.

are looking for new ways to reconcile conflicting family and work responsibilities. Families testifying at the WHCF national hearings identified workplace policies as one of their top 10 concerns. State proposals to alleviate conflict between work and family needs included: (1) Flexible working hours; (2) parttime employment; (3) job sharing; (4) family leave time; and (5) employer-provided or subsidized child care. In a nationwide Gallup poll, over half of those surveyed felt that "more flexible working hours" would be helpful in enabling families to cope with the conflicting demands of work and family responsibilities. About a third of those surveyed identified "sick leave for an employee if a family member is ill" and "child care facilities at place of employment" as helpful personnel policies. Delegates to the three national Conferences strongly agreed that industry needed to "give special consideration to the needs of employees with family responsibilities."

Full-time homemaking is the single most prevalent occupation in the United States today. When the part-time homemaking activities of men and women are added to those of full-time homemakers, the estimated value of this work is equal to 30 to 50 percent of the Gross National Product. The value of homemaking, however, is not counted in our economic system. In the WHCF, 24 States recommended the recognition of the economic contribution of homemakers through changes in the social security system, tax policy, and marriage and divorce laws. Eleven States called for increased programs for "displaced homemakers." Delegates to the three national Conferences recommended the recognition of the contribution of homemakers and the equal division of financial resources between spouses.

Inflation and Economic Pressures

The WHCF identified inflation and the high cost of living as a major concern of families today, ranking as the second most frequently mentioned concern in the national hearings. The most frequently mentioned concern was sensitivity of government policies. Witnesses testified to the severe hardships inflation imposes on families, especially the poor and the elderly. A large majority of respondents

to the national Gallup poll identified "the high cost of living" and "energy costs" as two of the three most important problems facing their family. State recommendations to alleviate inflation included: (1) Balancing the budget; (2) limiting government spending; (3) limiting individual and industry credit use; (4) establishing wage-price controls; and (5) establishing more consumer credit counseling and money-management programs. Delegates to the three national Conferences were particularly concerned with the effect of rising prices on necessities such as food, health, housing, and energy.

Income Security

Since the beginning of this century, the Government has had an increasing role in protecting the economic well-being of families through income maintenance programs. The current public welfare system is a complex mixture of income assistance programs diversely administered by Federal, State, and local agencies. Witnesses at the WHCF national hearings frequently suggested changes in the present system. State recommendations included: (1) The welfare system should provide a basic adequate minimum income for families; (2) education should be provided to encourage welfare recipients to work towards independence; (3) welfare regulations should be revised to eliminate present penalty to two-parent families; and (4) the welfare system should be consolidated and administered at the local level to better coordinate and deliver a variety of services. Delegates to the national Conferences suggested that the Federal Government take the lead role in coordinating and financing the public welfare system. They were concerned that programs interface with each other and have a positive impact on families.

Tax Policy

Taxes take a major proportion of the average worker's paycheck, and the impact of various tax policies on the family was frequently mentioned as a major concern by witnesses at the WHCF national hearings. Several specific tax policies were identified and discussed at the national hearings, State activities, and the national Conferences.

The so-called "marriage penalty," which taxes two working married people at a higher rate than two working single people who live together, was identified at both the national hearings and the State activities as an economic burden to families. Delegates to the national Conferences recommended allowing married individuals to use the tax rate for single individuals.

As inflation pushes both prices and incomes to higher levels, people are forced into higher income brackets with correspondingly higher tax burdens. The States and delegates to the national Conferences recommended changing the rate structure to adjust for inflation.

Implementation of Recommendations

When the President called for the WHCF, he mandated a followup and implementation period. The implementation period is scheduled through March 1981. As this article went to press, plans were underway for meetings

with key constituencies and decisionmakers, for linking WHCF recommendations to ongoing activities, and for making specific legislative suggestions.

Summary of Recommendations

The family economic recommendations adopted by delegates to the three national Conferences are paraphrased in the following table. The percentage of voting delegates who voted for a recommendation is indicated for each Conference; where there were several related recommendations proposed at the same Conference, the voting percentage for each individual recommendation is listed. Only recommendations with support from more than one of the three national Conferences are listed.

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³Complete text of recommendations are available from the White House Conference on Families, 330 Independence Avenue, SW., Washington, D.C. 20201.

RECOMMENDATIONS RELATING TO THE ECONOMIC WELL-BEING OF FAMILIES FROM THE NATIONAL WHITE HOUSE CONFERENCE ON FAMILIES

Employment and Work

Full employment (B-86%, 90%, 90%, M-74%, 73%, 77%, L.A.-74%)

All branches of government should strengthen and enforce existing legislation on programs for full employment, specifically implementing the Humphrey-Hawkins Full Employment Act. Full employment programs should be targeted to teenagers, minorities, women, and other underemployed persons. Adequate support services to facilitate full employment must be made available, such as public transportation to connect rural and city people with jobs, child care facilities, and comprehensive training.

Employment discrimination (B-92%, 80%, M-70%, 88%, L.A.-76%, 70%)

Federal, State, and local government should more effectively monitor and enforce existing legislation and enact additional legislation prohibiting all forms of discrimination and harassment in employment. Government should explore ways to define and support equal pay for comparable work.

Workplace policies (B-96%, M-91%, L.A.-90%)

Business, labor, and government should encourage and implement personnel policies that help maintain a strong family life, such as flexitime, flexible leave policies for both sexes, job sharing programs, child care centers, dependent care options, and part-time jobs with prorated pay and benefits. Employers should also recognize the possible adverse effects of relocations on families and provide support and options.

Home as a workplace (B-95%, 94%, M-93%, 89%)

Federal, State, and local governments should recognize the economic and career value of homemaking by promoting a positive image of homemaking through media campaigns and education; establishing homemaking as a career by the Department of Labor; vesting social security and pension funds equally between spouses

without reducing benefits; and considering assets accrued during marriage as equally earned. Additionally, there should be a complete system of support services for displaced homemakers.

Inflation and Economic Pressures

Anti-inflation policy (B-78%, M-78%, 91%)

Federal, State, and local governments should support anti-inflation policies which put special emphasis on food, health, energy, and housing, including a national health program and lower interest rates. Anti-inflation policies should not cause unemployment or place the burden of controlling inflation on any one social or economic group.

Energy policy (B-78%, M-78%, L.A.-83%)

Federal, State, and local governments should support a comprehensive national energy policy including support to find effective, safe, alternative energy sources, and support for mass transit.

Income Security

Income maintenance programs (M-73%, L.A.-83%)

The Federal Government should bear the major responsibility for financing income maintenance programs, establishing national standards, and supervising State administration of programs. Benefits should be adjusted for regional variations. Programs should interface with federally funded employment, education, and training programs, and should be available regardless of race, sex, language, culture, marital status, educational level, or region.

Social security (B-92%, 91%, M-78%, L.A.-78%)

The social security system should be simplified and integrated with other Federal income programs to ensure a minimum living standard at least equal to established poverty level for all elderly. Changes in social security should provide higher limits on income earned in retirement; remove dependency category for spouses and develop an earnings sharing program; provide quarters of social security credit for men and women taking off from employment for child-rearing time; provide reimbursement for care of handicapped and elderly at home; provide survivor benefits regardless of age and children; provide equitable treatment of homemakers; relax the strenuous eligibility for disability requirements; provide benefits to employed husbands and wives as individuals rather than married couples; and provide for equitable allowances for discrepancies in life expectancy.

Tax Policy

Marriage penalty (B-96%, M-95%, L.A.-92%, 90%, 90%)

The President and the Congress should support legislation to eliminate the tax penalty for two-worker married couples. The aggregate tax paid by a married couple with dual incomes should be no greater than the aggregate tax paid by two single individuals with similar adjusted gross incomes and deductions.

Inflation penalty (B-51%, M-93%, L.A.-90%)

The President and the Congress should support legislation to index the Federal personal income tax rates and brackets to adjust for inflation.

Inheritance tax changes (B-96%, M-88%, 95%, L.A.-92%, 90%, 90%)

IRS laws should be revised to eliminate inheritance tax for spouses.

Tax credits and deduction (B-96%, 54%, M-95%, 93%, L.A.-90%, 90%)

IRS laws should be revised to provide tax credit for full-time homemaking and child care, increased child care/dependent care tax credits for working parents, tax credit for home care of elderly and those with infirmities, and tax deduction for family saving plan.

Note: Recommendations have been paraphrased. B = Baltimore Conference, M = Minneapolis Conference, L.A. = Los Angeles Conference. Pencentages stand for percentage of voting delegates at indicated Conference who voted for a related recommendation. More than one percentage indicates several related recommendations.

THE BLACK ELDERLY

In 1978 the black elderly population (persons 65 years of age and older) numbered almost 2 million, up approximately 30 percent from 1970. This increase exceeded the growth of the white elderly by a three to two margin. Projections for the year 2000 indicate that the black elderly population will increase 53 percent over the 1978 level to a total of over 3 million persons. In comparison, the white elderly population is expected to increase about 30 percent to a total of just over 28 million persons.

Elderly blacks are concentrated at the low end of the income scale. Thirty-six percent of all black elderly persons compared with 12 percent of all white elderly persons reported income below the poverty level in 1977. Evaluation of the economic well-being of an elderly male and his wife, using the Bureau of Labor Statistics' hypothetical budgets for retired couples, indicates that in 1977, 65 percent of black retired couples had incomes below the cost of the intermediate budget and 40 percent of black retired couples had incomes below the lower budget level. This compares with 38 percent and 17 percent of white retired couples.

The median income for black elderly headed families in 1977 was \$6,066, one-third less than that reported by white elderly families (\$9,458). Similarly, the median income for black elderly unrelated individuals (\$2,804) was lower than that of white elderly unrelated individuals (\$3,947). Sources of income also varied by race. As shown in table 1, a greater proportion of elderly blacks than elderly whites reported an income from wage and salary earnings. Although almost all elderly re-

ported some form of transfer payment income, of which social security payments were the most prevalent, elderly blacks were more likely than elderly whites to report income from supplemental security income and public assistance. In contrast, elderly blacks were far less likely than elderly whites to report income from dividends, interest, rent, pensions, alimony, and annuities.

Only one-seventh of black elderly headed families compared to one-fourth of their white counterparts relied on income other than earnings and transfer payments for one-half or more of their total family income in 1977. Studies suggest that the disparity between the proportions of black and white elderly headed families reporting income from pensions may be because black workers possess fewer of the characteristics commonly associated with jobs offering pension coverage. Black workers tend to be employed in low-paying, nonprofessional, nontechnical jobs and are not likely to be employed in manufacturing industries. In general, black workers in jobs that do offer pension programs have worked fewer years in those jobs than whites.

Thirty-five percent of all black elderly persons lived alone or with unrelated individuals in 1978, compared with 32 percent of white elderly persons (see table 2). Sixty-five percent of black and 68 percent of white elderly persons lived in families, more than one-half of which were headed by elderly persons. Although elderly black men were less likely than elderly white men to head families, elderly black women were more than twice as likely as their white counterparts to head families. Black families with a head 60 years of age or older were slightly larger and had a greater proportion of young family members than comparable white families.

¹The poverty level is dependent upon the size and age-sex composition of the family. The weighted average poverty threshold in 1977 was \$2,895 for elderly unrelated individuals and \$3,637 for two-person families with an elderly head.

²The annual budget costs for a retired couple for autumn 1977 were \$5,031 at the low level, \$7,198 at the intermediate level, and \$10,711 at the higher level (see "Three Budgets for a Retired Couple, Autumn 1977," 1978, U.S. Department of Labor, Bureau of Labor Statistics, USDL: 78-698).

Source: Williams, Blanch Spruiel, 1980, Characteristics of the black elderly—1980, Statistical Reports on Older Americans No. 5, U.S. Department of Health and Human Services (formerly U.S. Department of Health, Education, and Welfare), Office of Human Development Services, DHEW Pub. No. (OHDS) 80-20057.

Table 1. Source of income for families and unrelated individuals 65+ years old, by race, 1977
[Data exclude persons in institutions]

	Percent receiving specified type of income ¹				
Source of income	Families,	head 65+	Unrelated in	Unrelated individuals 65+	
	Black	White	Black	White	
Earnings	59.4	47.1	18.6	17.3	
Wage and salary	56.8	38.9	16.8	13.1	
Nonfarm self-employment	4.9	8.9	1.2	2.2	
Farm self-employment	1.9	5.8	0.9	2.5	
ncome other than earnings	97.2	99.0	98.1	98.9	
Transfer income	95.6	94.1	96.6	95.4	
Social security	87.9	92.9	86.7	93.2	
Supplemental security	28.7	6.5	32.6	10.4	
Public assistance	12.7	1.3	5.0	1.3	
Other income	31.8	78.6	28.2	67.0	
Dividends, interest, rent	20.8	69.9	15.9	60.1	
Private and Government pensions,					
alimony, annuities, etc	17.7	41.8	15.4	27.2	
Other transfer income ²	11.2	10.2	6.1	7.1	

¹Percents will not add to total because some units received more than one type of income.

Source: U.S. Department of Commerce, Bureau of the Census, 1979, Characteristics of the population below the poverty level: 1977, *Current Population Reports*, Series P-60, No. 119; and unpublished data from the March 1978 Current Population Survey.

Table 2. Living arrangements of persons 65+ years old, by race, March 1978

[Data exclude persons in institutions]

	Percent distribution		
Living arrangements	Black	White	
Total	100.0	100.0	
Living alone or with nonrelatives	35.4	32.3	
Male	13.0	6.7	
Female	22.4	25.6	
Living in family units	64.6	67.7	
Male head	24.0	32.1	
Female head	11.1	4.6	
Relatives of head	29.4	31.0	

Source: U.S. Department of Commerce, Bureau of the Census, 1979, Marital status and living arrangements: March 1978, Current Population Reports, Services P-20, No. 338 and unpublished data from the March 1978 Current Population Survey.

Note: Percents may not add up to totals because of rounding.

²Unemployment and workman's compensation, and veterans' payments.

MOONLIGHTING BY WOMEN

Nearly 1 in 20 workers, about 4.7 million persons, held more than one job in May 1979. About 3 out of every 10 multiple jobholders were women, nearly double the proportion 10 years earlier. While men moonlighters are more likely to hold one full-time job and one part-time job, women are about equally divided between those who hold one full- and one part-time job and those who hold two part-time jobs. Few men and women hold two full-time

jobs. Reasons for moonlighting include meeting regular expenses, saving for the future, paying off debts, getting experience, and enjoying the work.

Source: Sekscenski, Edward S., 1980, Women's share of moonlighting nearly doubles during 1969-79, Special Labor Force Reports—Summaries, Monthly Labor Review 103(5):36-39, U.S. Department of Labor, Bureau of Labor Statistics.

CONFLICTS BETWEEN WORK AND FAMILY LIFE

A substantial number of workers living in families have experienced some type of conflict between their work and their family life. This is according to the results of the 1977 Quality of Employment Survey conducted for the U.S. Department of Labor by the Survey Research Center at the University of Michigan. Three surveys were conducted between 1969 and 1977 to measure the quality of employment in the United States. The 1977 survey was the first to include questions that examined the extent to which work interferes with family life.

One-fourth of all workers who are married or living with children under age 18 reported moderate work-family conflict and another one-tenth reported severe work-family conflict. Women and men reported similar amounts of conflicts. Women heading one-parent families reported conflict somewhat less often than women or men in two-parent families, parents reported more conflict than childless couples, and parents of preschoolers reported more conflicts than parents of school-age children (table 1).

The specific working conditions that contributed most to the work-family conflict were: Excessive working hours, scheduling incompatibilities, and physically or psychologically demanding duties that caused fatigue and irritability. Being self-employed, holding a second job, and commuting long distances to work were unrelated to the conflict.

Husbands were more likely than wives to report excessive work time as the major cause of the work-family conflict, whereas wives were more likely than husbands to report fatigue and irritability (table 2). Employed women in one-parent families were more likely than husbands or wives to report schedule incompatibilities as the major problem. The greater family responsibilities for women may be the reason for higher reports that the physical and psychological consequences of work caused family problems. Fatigue and irritability brought home from work often make performing family tasks more difficult, thus creating problems for the entire family. Husbands generally spend longer hours on the job but perform fewer home tasks. Having the opportunity to rest after work may help make fatigue and irritability less of a problem for husbands.

Perhaps these data underestimate the sex differences. Married women who feel that their job interferes severely with their family life usually have more freedom to leave the labor force than men and thus they would not be included in this survey of workers. Also, some women may have answered affirmative to the questions to cover up feelings of guilt for working instead of staying at home with their families.

There are several consequences to the conflict between work and family life. The most significant are lower satisfaction with the job, lower satisfaction with the family, and lower contentment with life in general. This survey's data show that the schedule and demand of the job do affect the worker's life, and results suggest that minimizing these conflicts should be one of the many goals in the design of work schedules.

Source: Pleck, Joseph H., Graham L. Staines, and Linda Lang, 1980, Conflicts between work and family life, *Monthly Labor Review* 103(3):29-32, U.S. Department of Labor, Bureau of Labor Statistics.

Table 1. Frequency of work-related conflict reported by family members

Group	No conflict	Little conflict	Moderate conflict	Severe conflict
		Per	cent	
All family members ¹	24	41	24	10
Employed husbands with employed wives	27	42	21	11
No children	35	37	20	7
Preschool children	23	41	23	13
School-age children	20	47	21	12
Employed wives with employed husbands	23	39	28	10
No children	37	34	19	11
Preschool children	12	40	36	12
School-age children	16	44	31	9
Employed women in one-parent families	17	58	14	11
Preschool children	19	56	9	16
School-age children	16	60	18	7

¹Total sample size is 1,064; percentages based on weighted sample.

Source: Pleck, Joseph H., Graham L. Staines, and Linda Lang, 1980, Conflicts between work and family life, Monthly Labor Review 103(3):29-32, U.S. Department of Labor, Bureau of Labor Statistics.

Note: Figures may not add up due to rounding.

Table 2. Family members reporting common types of work-family conflicts

Group	Excessive work time	Schedule incompatibility	Fatigue and irritability
		Percent	
All family members ¹	50	28	15
Employed husbands with employed wives	63	22	11
Employed wives with employed husbands	39	39	27
Employed women in one-parent families	10	50	15

¹Total sample size is 372; percentages based on weighted sample of those experiencing moderate or severe conflict.

Note: Figures may not add up due to rounding.

Source: Pleck, Joseph H., Graham L. Staines, and Linda Lang, 1980, Conflicts between work and family life, *Monthly Labor Review* 103(3):29-32, U.S. Department of Labor, Bureau of Labor Statistics.

URBAN FAMILY BUDGETS – AUTUMN 1979

The Bureau of Labor Statistics has updated to autumn 1979 its three hypothetical annual budgets for an urban family and the comparative indexes for selected urban areas. This updating reflects changes in prices and personal taxes from autumn 1978 to autumn 1979.

In autumn 1979, the U.S. average cost of the lower budget for an urban family of four was \$12,585 a year, and the intermediate and higher levels were \$20,517 and \$30,317, respectively. These budgets represent a total budget cost increase over autumn 1978 of 9.0 percent for the lower budget, 10.2 percent for the intermediate budget, and 10.6 percent for the higher budget.

With the exception of housing, costs went up about the same for each budget level. Transportation costs showed the largest increase, 18.0 percent, and clothing the smallest increase, 2.0 percent. Housing increased more in the two higher budget levels than the lowest because homeowner costs, which are included only in the intermediate and higher budgets, increased more than rental costs.

The budgets represent the costs of three hypothetical lists of goods and services that were specified in the mid-1960's to portray three relative standards of living. The hypothetical urban family of four is defined as a 38-year-old husband employed full time, a nonworking wife, a boy of 13, and a girl of 8.

Source: Department of Labor, Bureau of Labor Statistics, 1980, Autumn 1979 urban family budgets and comparative indexes for selected urban areas, *News*, USDL 80-278.

Annual budgets for a 4-person family at 3 levels of living, urban United States, autumn 1979

Component	Lower	Intermediate	Higher
		Dollars	•
Total budget	12,585	20,517	30,317
Total family consumption	10,234	15,353	21,069
Food	3,911	5,044	6,360
Housing	2,409	4,594	6.971
Transportation	1,004	1,851	2,411
Clothing	866	1,235	1,804
Personal care	323	433	613
Medical care	1,171	1,176	1,227
Other family consumption	550	1,021	1,684
Other items	539	877	1,478
Social security and disability	781	1,256	1,413
Personal income taxes	1,032	3,031	6,357

Source: Department of Labor, Bureau of Labor Statistics, 1980, Autumn 1979 urban family budgets and comparative indexes for selected urban areas, News, USDL 80-278.

Note: Because of rounding, sums of individual items may not equal totals.

LABOR FORCE PATTERNS OF SINGLE WOMEN

Single women workers—never-married women 16 years, and over—represent a growing portion of the total labor force. During the 1968-78 decade, the number of single women in the labor force increased from approximately 6.4 to 10.2 million. As a proportion of the labor force, single women increased from 22.1 to 24.9 percent. This increase is due, in part, to the rise in the proportion of women in their twenties who postpone marriage or choose to remain single. For example, the proportion of women 20 to 24 years of age who were single rose by one-third (from 35.9 to 47.6 percent) between 1968 and 1978, whereas, the proportion of women in their late twenties who were single rose by three-fourths (from 10.3 to 18.0 percent).

In 1978, 61 percent of all single women 16 years and over were in the labor force—up from 51 percent a decade earlier (this proportion was 82 percent in the 25- to 34-year-old age group in 1978). Single women have historically had pronounced labor market activity. Since 1890 their labor force participation rate has been over the 40-percent mark, whereas the rate for all women has remained much lower. Between 1890 and World War II, however, the role of the single working woman was not, in most cases, a highly regarded one. For young single working women, jobs were viewed as a temporary means to mark time before marriage. For older single working women, or "spinsters," jobs were viewed as a substitute for home and family. These sentiments toward working women in general changed due to the marked influx of married women into the labor force during the 1940's and 1950's. Also, after World War II population shifts from rural to urban areas brought the majority of women closer to job opportunities.

Although single women have increased as a proportion of the labor force, married women have overtaken single women as the dominant group in the female labor force. Married women accounted for nearly one-half (48.9 percent) the increase in the female labor force during the 1968-78 decade, reflecting primarily

a higher labor force participation rate. Single women were responsible for almost one-third (31.7 percent) of the increase, which was about equally attributable to a rate increase and to population growth.

In 1978 the majority of single women workers were employed either in clerical or service occupations—36.6 and 20.1 percent, respectively. Professional-technical and managerial jobs, which generally require more education, skills, and experience, were dominated by single women over 25. A higher proportion of older than younger employed single women worked full time; about 89 percent of those over age 25 were full-time workers. Only about 30 percent of employed single teenagers worked full time; teens were most heavily concentrated in service occupations.

Of the 10.2 million single women who were in the labor force in March 1978, more than one-tenth were unemployed. Those age 16 to 19 years, particularly black teenage women, were the most likely to be unemployed. Teenage unemployment is mostly due to conflicting school and work schedules, problems of transition in moving from school to work, and the fact that teenagers more frequently than adults are new entrants to the labor force, change jobs, move into and out of temporary jobs, and do not steadily seek work. In contrast, older single women were substantially less likely to be unemployed. For example, the unemployment rate for single women 55 to 64 years was 1.0 percent compared with 16.8 percent for teenagers. Single black female householders also fared poorly in the labor force.2 Their unemployment rate was 22.6 percent compared with 7.1 percent for white female householders. The higher rate is due to the comparative youth, family responsibilities, and lack of formal education of these black woman.

¹Excludes widows and separated or divorced women.

²The term "female family householder" has replaced "female family head" in Current Population Survey terminology.

Source: Grossman, Allyson Sherman, 1979, Labor force patterns of single women, Monthly Labor Review 102(8):46-49, U.S. Department of Labor, Bureau of Labor Statistics (reprinted as Special Labor Force Report 228).

SOCIAL SECURITY AND THE CHANGING ROLES OF MEN AND WOMEN

This is a report of a congressionally mandated study completed by the Social Security Administration to examine ways to eliminate dependency as a factor in determining entitlement to social security spouse's benefits. The desire to eliminate dependency as a criterion for entitlement has developed because the roles of men and women within families, as well as the overall structure of families, have changed since the social security system was instituted over 40 years ago. The report analyzes two options for eliminating the dependency criterion while maintaining the equity and adequacy goals of social security. The options are: (1) Earnings

shared which provides for equal division between the spouses of earnings of a married couple thereby establishing protection in the name of each spouse, and (2) the double decker plan which provides two tiers of social security protection, one payable regardless of earnings status and the second related to earnings.

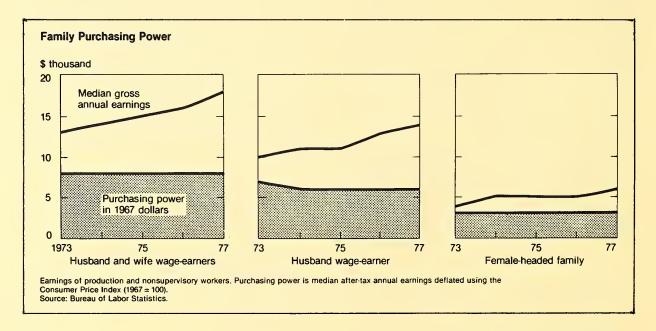
For information on obtaining a copy of Social Security and the Changing Roles of Men and Women (February 1979, 323 pp.), write to: Social Security Administration, Att: Office of Public Inquiry, 6401 Security Boulevard, Baltimore, Md. 21235.

FAMILY PURCHASING POWER

Although family median gross annual earnings increased almost 35 percent between 1973 and 1977, the amount of goods and services that a family could purchase purchasing power—has changed little since 1967. Inflation

and taxes account for most of the difference between earnings and purchasing power.

Source: U.S. Department of Agriculture, Economics, Statistics, and Cooperatives Service, 1980, 1980 Handbook of Agricultural Charts, Agriculture Handbook No. 574 (chart No. 117).



EMPLOYMENT GAINS OF WOMEN, 1968-78

Women filled more than one-half of the 18.5 million nonagricultural jobs created between 1968 and 1978. Most of these jobs were in the rapidly expanding service-producing sector—those industries with traditionally low hourly earnings, such as services; finance, insurance and real estate; and retail trade. Women also made significant gains in several nontraditional male-dominated industries such as coal mining, construction, transportation, and engineering and architectural services.

The proportion of women on nonagricultural payrolls increased from 36 percent in 1968 to 41 percent in 1978. Almost all of the change occurred in the service-producing sector, where women accounted for 47 percent of the jobs in 1978—up from 42 percent in 1968. The proportion of women in the goods-producing sector edged off slightly.

The increase in the proportions of female employment in the service-producing sector has had an important effect on the overall earnings of women. Average weekly earnings in this sector are about two-thirds of those in the goods-producing sector. Therefore, the faster growth of female employment in these groups tends to depress the average weekly earnings of all women in nonagricultural jobs.

Women's share of employment has increased considerably between 1968 and 1978 in mining

and construction, although female employment in each division is under 10 percent. Women also made important gains in both durable and nondurable manufacturing, in the Federal Government, public utilities, and transportation. They have more than doubled their employment over the decade in two transportation industries—local and interurban passenger transit and transportation services.

Data on women employees on nonagricultural payrolls during the 1969-70 and 1973-75 recessions reveal that the representation of women was not adversely affected in the nonmanufacturing divisions by the economic slowdown. In manufacturing, however, during both recessions, women's share of employment was adversely affected and dropped disproportionately. During periods of declining activity, women in the manufacturing industries are affected by cutbacks more severely than are men. One reason may be that because of the large influx of women into employment in the past decade, women have relatively less seniority than men, and thus, less protection from layoffs.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1980, Employment gains of women by industry, 1968-78, Monthly Labor Review 103(6):3-9.

RURAL DEVELOPMENT PERSPECTIVES — RURAL POVERTY

"Focus on Rural Poverty" is the second issue of Rural Development Perspectives, an occasional publication from the Economics, Statistics, and Cooperatives Service, USDA. Included in this issue are articles focusing on—

- The history of the Rural Poverty Commission and its recommendations.
- The present status of the rural poor.
- Federal programs that have helped improve living conditions of the rural poor, such as the Food Stamp Program and Medicaid.
- The problems of the present welfare system and proposed legislation.
- Results of the project on income support—the Rural Income Maintenance Experiment (a cash-assistance program to test the effects of income maintenance in combination with manpower training and social services).
- A report on efforts of the Farmers Home Administration to control the targeting of its rural development programs.

Single free copies of this publication, dated March 1980, can be obtained by writing to the Economic Development Division, ESCS, USDA, Room 456, GHI Building, Washington, D.C. 20250.

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HOUSING AND URBAN DEVELOPMENT ABSTRACTS

Equal Credit Opportunity: Accessibility to Mortgage Funds by Women and Minorities

U.S. Department of Housing and UrbanDevelopmentOffice of Policy Development and Research

A study of mortgage application data collected in California and New York examined the different treatment applicants received on the basis of race, sex, marital status, and redlining (the location of the property). Lending practices considered discriminatory were: Denial of application; charging above average interest; giving less of a loan than originally sought; variation in loan fees; and underappraising the property. Investigation of the differential treatment received by applicants who differed only in nonfinancial aspects such as race, sex, or marital status showed that discrimination did exist in the lending market. Racial discrimination against prospective minority homebuyers was widespread though not equally severe for all minorities or in all areas. Study findings did not indicate discrimination against females, although a few study areas showed higher chances of application denial or downward modification for female-only applicants. There was little evidence suggesting that lenders discount a wife's income. Among the sex and marital categories studied, the group found to receive the most unfavorable treatment from lenders were applicants from male-only households. The tests for redlining yielded mixed results. Single copies of this two-volume study and the executive summary of the report are

available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Homebuyers Information Package— A Guidebook for Buying and Owning a Home

U.S. Department of Housing and Urban
Development

Office of Policy Development and Research

This comprehensive information package on buying and owning a home includes work forms, checklists, and samples of pertinent legal documents. In a looseleaf notebook format with section tabs, the package covers eight areas of information: To buy or not to buy, the search for a house, purchase contracts, financing the house, the closing process, money management, maintaining the home, and a glossary of homebuying terms. Emphasis is placed on the need for a careful, unemotional evaluation of the house offered for sale and the financing options available to the buyer. The section on money management tells the prospective owner how to deal with initial problems and defects, set up a homeownership budget and manage it, resolve financial problems, and get counseling help if needed. Budget worksheets are included. A free leaflet containing pointers taken from the package is also available. The publication is available in Spanish as well. Single copies of Homebuyers Information Package—A Guidebook for Buying and Owning a Home, HUD-PDR-370, are available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Population Redistribution and Changes in Housing Tenure Status in the United States

Department of Housing and Urban
Development
Division of Housing and Demographic
Analysis

Using data from the Annual Housing Survey, this paper takes a national perspective in examining the relationship between population redistribution and changes in housing tenure status. Results from the research indicate that: (1) Short-distance residential moves are the predominant form of household mobility; (2) the probability of changing from renter to owner status in any type of area was greater for higher income married households than for lower income nonmarried households; and (3) for renters, moving from suburbs to central cities or between central cities reduced the probability of buying a home. Suggested implications for urban policy are that more emphasis should be placed on providing affordable and attractive ownership opportunities for present city residents rather than on attempting to attract present suburbanites. Tabular data and references are included. Single copies of Population Redistribution and Changes in Housing Tenure Status in the United States, HUD-PDR-474-1, are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Annual Housing Surveys Longitudinal Transformation Handbook

Columbia University
Center for the Social Sciences

Longitudinal data files of the Annual Housing Surveys are provided by the Center for the Social Sciences at Columbia University under an agreement with the U.S. Department of Housing and Urban Development. Those data files are produced according to user specifications and are made available for public use. Files have been prepared for the years 1974, 1975, and 1976; successive years will be added when they become available. The center also provides a clearinghouse for research. This handbook provides guidelines and contact

information for prospective users. Single copies of the Annual Housing Surveys Longitudinal Transformation Handbook are available free from Center for the Social Sciences, 811 National Affairs Building, Columbia University, New York, N.Y. 10027.

Determinants of Neighborhood Quality: An Analysis of the 1976 Annual Housing Survey

U.S. Department of Housing and Urban DevelopmentOffice of Policy Development and Research

Using data from the 1976 Annual Housing Survey, this publication examines the relationships between respondents' evaluations of neighborhood conditions and public services and their overall assessment of neighborhood quality. The model takes into account: (1) The extent to which the presence or absence of conditions influence ratings of neighborhoods, (2) the relative importance of condition and service evaluations in explaining overall neighborhood ratings, and (3) the extent to which the evaluations in households with different background characteristics differ in importance in explaining overall neighborhood ratings; Findings suggest that most Americans are quite content with their neighborhoods. The presence or absence of neighborhood conditions account for only one-sixth of all variation in neighborhood quality ratings. People's feelings about conditions around them are more important to their assessment of neighborhood quality than are their perceptions of local government services. Methodological suggestions include: (1) Future surveys should contain questions covering combined attributes; (2) the use of a different battery of evaluative questions for rural and urban neighborhoods should be considered; and (3) questions on person's intentions to move from their present residences should be added. A bibliography is included. Single copies of Determinants of Neighborhood Quality: An Analysis of the 1976 Annual Housing Survey, HUD-PDR-474, are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Housing in America: The Characteristics and Uses of the Annual Housing Survey

Department of Housing and Urban Development Division of Evaluation

This pamphlet provides a guide to both published and unpublished research which focuses on use of the Annual Housing Survey data to monitor housing conditions and needs; analyze changes in housing markets; and monitor, evaluate, and target public programs. The pamphlet includes a description of the Annual Housing Survey, including both the national and the standard metropolitan statistical area samples. Single copies of *Housing in America: The Characteristics and Uses of the Annual Housing Survey*, HUD-PDR-470-2, are available from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Home Improvement Financing

U.S. Department of Housing and Urban DevelopmentOffice of Policy Development and Research

Home improvement expenditures have doubled since 1970. In 1976 alone, \$29 billion were spent on projects ranging from "paint-up and fix-up" to substantial renovation. A wide range of institutions are actively providing consumers with home improvement financing, with and without Federal or private loan insurance. This study examines the home improvement market, including how home improvements are carried out, homeowner attitudes and motivations for undertaking improvements, and factors influencing the decision to make improvements. Statistics on how home improvements are financed are presented and the role of the Title I Property Improvement Loan Program is described. The ability of lowerincome homeowners to maintain their property is evaluated and assistance available to these people described. Recommendations for future research are presented. The Appendixes include information on State and local improvement programs and a bibliography. Single copies of Home Improvement Financing, HUD-PDR-408, are available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Occasional Papers in Housing and Community Affairs, Volume 5

U.S. Department of Housing and Urban
Development
Office of Policy Development and Research

This volume presents papers given at a May 1978 conference on issues in housing finance. Participants addressed the issue of housing cycles from a macroeconomic perspective. The traditional view that housing is a countercyclical industry, which exerts a stabilizing influence on the economy, was disputed. Rather, it was argued that housing has exerted a destabilizing influence on the economy, and macrostability requires stability in the housing sector. Major themes included the role of inflationary expectations in household behavior, distribution of benefits resulting from Federal housing programs, inflation in the price of housing, and the affordability of homes. A panel discussion and reference notes are included. Single copies of Occasional Papers in Housing and Community Affairs, Volume 5, HUD-PDR-497-5, are available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Graduated Payment Mortgages

Federal Reserve Board of New York

This article focuses on the graduated payment (GPM) form of alternate mortgage instruments, the most rapidly growing type of Federal Housing Administration (FHA)-insured mortgage. The characteristics of GPM's and their advantages and disadvantages for borrowers and lenders are discussed in sections describing their development and acceptance as both FHA-insured and private sector, conventional loans. The progress of GPM's in the secondary market is also covered, as is evaluation of GPM's in light of available information on default rates. The author concludes that the added flexibility provided by GPM's should ensure their continued growth and acceptance.

Graduated Payment Mortgages is reprinted from Quarterly Review, spring 1980, Vol. 5, No. 1. Single copies are available free from the Federal Reserve Board of New York, Public Information Department, 33 Liberty Street, New York, N.Y. 10045.

Homeownership: Coping with Inflation

United States League of Savings Associations Economics Department

This publication presents the results of the 1979 Home Buyer Survey conducted by the U.S. League of Savings Associations. The information is based on data from a nationwide sample of conventional loans on single family homes made by savings and loan associations in the second quarter of 1979. Demographic and economic profiles of buyers and information on what they purchased and how is presented for buyers nationwide, first time and repeat buyers, and buyers by region and city size. Profiles of other selected buyer groups are also provided. Comparisons with the results of the 1977 Home Buyer Survey, published in 1978 as Homeownership: Realizing the American Dream, and Homeownership: Affording the Single-Family Home, provide the basis for information on the impact of inflation on the various segments of the homebuying population. Policy implications are also discussed. Single copies of Homeownership: Coping with Inflation are available for \$10 from the U.S. League of Savings Associations, 1709 New York Ave., NW., Suite 801, Washington, D.C. 20006.

Data Resources in Housing and Urban Development

Department of Housing and Urban Development Division of Product Dissemination and Transfer

This brochure describes data files now available to the public from the Annual Housing Survey, the Survey of Developmental Needs of Small Cities, and the Survey on the Quality of Community Life. The purpose and methodology of each survey are described, and the kinds of data each survey collected are summarized. Included in this publication is information on where to obtain additional documentation, printed reports, and the data files themselves. Single copies of *Data Resources in Housing and Urban Development*, HUD-PDR-570(2), are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Evaluation of the Urban Homesteading Demonstration Program Third Annual Report

U.S. Department of Housing and Urban DevelopmentOffice of Policy Development and Research

HUD implemented the Federal Urban Homesteading Program as a demonstration in 1974 to assess homesteading as a strategy to rehabilitate urban housing and to measure the impact of the homesteading effort on home neighborhoods. The demonstration was evaluated during April and May 1979 after 3 years of operation by 23 cities. The evaluation covers local program administration; legal issues and problems; selection criteria for homestead properties; costs, percent finished, and personnel needs; and methods for rehabilitation financing. In addition, the homesteader selection process and the homesteader characteristics for each of the cities were studied. Appendixes provide homesteading statistical data, a list of HUD and demonstration city personnel, and the status of the demonstration in 16 second-round cities. Extensive tables are included. Single copies of Evaluation of the Urban Homesteading Demonstration Program, Third Annual Report, HUD-PDR-273-3 are available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

Housing Needs of Nontraditional Households: An Information Bulletin of the Community and Economic Development Task Force of the Urban Consortium

U.S. Department of Housing and UrbanDevelopmentOffice of Policy Development and Research

Changing demographic and housing patterns in recent years have resulted in serious problems for single, nonelderly individuals, one-parent families, transients, and other house-holds that do not fit the traditional nuclear family. This bulletin provides a descriptive profile of these households, analysis of major issues regarding their housing, and descriptions of current activities focusing on one-parent families, the elderly, transients in single-room occupancy hotels, and other nontraditional

households. Information sources and a bibliography are included. Single copies of Housing Needs of Nontraditional Households: An Information Bulletin of the Community and Economic Development Task Force of the Urban Consortium, HUD-PDR-523-1, are available free from HUD USER, P.O. Box 280, Germantown, Md. 20767.

A Guidebook: Home Mortgage Disclosure Act and Reinvestment Strategies

Department of Housing and Urban Development Office of Policy Development and Research

The Home Mortgage Disclosure Act (HMDA), enacted in 1975, requires federally supervised lending institutions to annually publicize the precise number of mortgage loans they have made, the amount of each of the loans, and the location of the properties on which the loans are made. A number of State and local statutes also require lenders to report this activity. The disclosure data are used to assess the presence and extent of discriminatory lending practices. This booklet explains the key provisions of the act and application of the HMDA data. Examples of applications with case studies as illustrations are provided. These examples cover analyzing local housing markets, negotiating with lenders, creating and monitoring reinvestment programs, and challenging lender applications for regulatory approval. Appendixes, charts, and tabular data are included. Single copies of A Guidebook: Home Mortgage Disclosure Act and Reinvestment Strategies, HUD-PDR-452(2), are available free (while supply lasts) from HUD USER, P.O. Box 280, Germantown, Md. 20767.

A Guidebook: Commercial Revitalization— Neighborhood Focus

U.S. Department of Housing and Urban DevelopmentOffice of Neighborhoods, Voluntary Associations, and Consumer Protection

This publication is a followup of a HUD Partnership Forum on Neighborhood Commercial Revitalization held on December 1, 1978. The Forum was designed to clarify the program

and policy role of HUD in the coordination of community economic development with urban development initiatives and to synthesize the diverse source of funds available for cities and neighborhood groups for neighborhood commercial projects. Programs and policies initiated since 1977 to help communities stimulate their urban economies are briefly reviewed, as are several "rules of thumb" that have proved successful in contributing to commercial revitalization at the neighborhood level. A six-step guide to implementing a commercial revitalization program, which includes a comprehensive design plan, financing strategies, and management techniques, is described. Contact addresses and telephone numbers of important Federal program offices are included. Single copies of A Guidebook: Commercial Revitalization—Neighborhood Focus, HUD-562-NVACP, are available free from Publications Service Center, HUD, Room B-258, 451-7th Street, SW., Washington, D.C. 20410.

Comparison and Analysis of the Consumer Safeguards of Variable Rate and Renegotiable Rate Mortgage Instruments—Research Working Paper 95

Federal Home Loan Bank Board Office of Policy and Economic Research

The variable rate mortgage (VRM), the renegotiable rate mortgage (RRM), and the rollover mortgage (ROM) are all forms of alternative mortgage instruments with one major common feature: The interest rate over the lifetime of the loan is not certain. As of January 1, 1979, all California Savings and Loan Associations (S&L's) could issue VRM's, as of July 1, 1979, all Federal S&L's nationwide could issue VRM's. Final regulations authorizing RRM's went into effect in April 1980. This paper compares and contrasts consumer safeguard regulations for VRM's and RRM's and early recommendations for ROM's. A table summarizing the points of comparison is included. Areas that may need modification in the future are pointed out. Single copies of this Research Working Paper 95 are available free from Federal Home Loan Bank Board, Office of Policy and Economic Research, 1700 G Street, NW., Washington, D.C. 20552.

COST OF FOOD AT HOME

Cost of food at home estimated for food plans at 4 cost level, September 1980, U.S. average¹

		Cost	Cost for 1 week			Cost for	Cost for 1 month	
Sex-age groups	Thrifty plan ²	Low-cost plan	Moderate- cost plan	Liberal plan	Thrifty plan ²	Low-cost plan	Moderate- cost plan	Liberal plan
Family of 2:3								
20-54 years	\$31.60	\$41.00	\$51.50	\$61.70	\$136.80	\$177.90	\$223.10	\$267.30
55 years and over	28.40	36.60	45.30	54.00	122.80	158.40	196.20	234.30
Couple, 20-54 years and children—								
1-2 and 3-5 years	44.60	57.30	71.50	85.60	193.20	248.20	309.80	371.00
6-8 and 9-11 years	53.70	69.20	86.70	103.90	232.80	299.60	376.00	450.20
INDIVIDUALS ⁴								
Child:								
7 months to 1 year	6.30	7.70	9.40	11.10	27.40	33.20	40.60	48.00
1-2 years	7.20	9.10	11.20	13.30	31.10	39.40	48.60	57.80
3-5 years	8.70	10.90	13.50	16.20	37.70	47.10	58.40	70.20
6-8 years	11.10	14.20	17.70	21.20	48.10	61.30	76.90	92.00
9-11 years	13.90	17.70	22.20	26.60	60.30	76.60	96.30	115.20
12-14 years	14.80	18.80	23.60	28.20	64.30	81.50	102.10	122.10
15-19 years	16.30	20.80	26.10	31.40	70.70	90.30	113.10	135.90
20-54 years	15.80	20.60	26.00	31.30	68.50	89.30	112.70	135.60
55 years and over	14.10	18.20	22.60	27.10	61.00	78.80	98.00	117.60
Female:								
12-19 years	13.20	16.80	20.80	24.90	57.30	72.90	90.30	107.70
20-54 years	12.90	16.70	20.80	24.80	55.90	72.40	90,10	107.40
55 years and over	11.70	15.10	18.60	22.00	50.60	65.20	80.40	95.40
Pregnant	16.20	20.60	25.40	30.10	70.20	89.40	110.00	130.60
Nursing	17.20	21.90	27.20	32.30	74.50	94.80	117.90	140.10

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for each plan were computed from quantities The costs of the food plans were first estimated using prices paid in 1965-66 by households from USDA's Household Food Consumption Survey with food costs at 4 selected levels. USDA updates these survey prices to estimate the current costs for the food plans using information from the Bureau of of foods published in the Winter 1976 (thrifty plan) and Winter 1975 (low-cost, moderate-cost, and liberal plans) issues of Family Economics Review. Labor Statistics: "Estimated Retail Food Prices by Cities" from 1965-66 to 1977 and "CPI Detailed Report," tables 3 and 9, after 1977. ²Coupon allotment in the Food Stamp Program based on this food plan.

310 percent added for family size adjustment. See footnote 4.

⁴The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add percent; 3-person—subtract 5-or-6 person—subtract 5 percent; 7-or-more-person—subtract 10 percent.

CONSUMER PRICES

Consumer Price Index for all urban consumers (1967 = 100)

Group	Sept. 1980	Aug. 1980	July 1980	Sept. 1979
ll items	251.7	249.4	247.8	223.4
Food	261.1	258.7	254.8	237.1
Food at home	258.9	256.3	251.5	234.7
Food away from home	271.4	269.5	267.8	247.6
Housing	267.7	265.8	265.1	234.6
Shelter	285.3	283.3	282.9	247.4
Rent	195.1	193.2	192.1	179.0
Homeownership	317.6	315.4	315.4	271.9
Fuel and other utilities	288.2	286.8	285.5	251.2
Fuel oil, coal, and bottled gas	561.5	561.5	560.4	461.6
Gas (piped) and electricity	318.4	316.1	314.3	270.1
Household furnishings				
and operation	209.2	207.2	206.2	192.2
Apparel and upkeep	182.2	178.6	176.2	169.8
Men's and boys' apparel	171.7	167.9	165.9	162.7
Women's and girls' apparel	159.0	153.7	150.6	155.9
Footwear	193.2	190.3	189.5	180.1
Transportation	254.7	252.7	251.0	221.4
Private	253.2	251.6	250.5	220.0
Public	271.0	261.5	250.5	205.2
Medical care	270.6	268.4	266.6	243.7
Entertainment	209.8	208.0	206.6	191.1
Other goods and services	220.6	214.5	213.5	201.7
Personal care	216.7	215.4	214.4	199.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

CORRECTIONS IN FAMILY ECONOMICS REVIEW PAST ISSUES

Summer/Fall 1980—Family Adjustments in Financial Management

The following lines were deleted at the end of column 2 on page 10:

The issues involved in changing consumption patterns will be debated more fully in the coming years. The everincreasing consumption of energy and material goods is viewed as a measure of success by some families, as a right of being

an American by others. Is there a difference between "wants" marketed by our economic system and "wants" taught by parents, teachers, and clergy? Are family

Fall 1979—Child Care: Arrangements and Costs

Population figures given in column 1 of the table on page 5 are incorrect. To correct figures, divide by 2 (i.e., the total number of families with at least one member under 6 should be 13,570 thousand families).

FAMILY ECONOMICS REVIEW WINTER 1981

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